



Office of General Services

DESIGN & CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 1 TO PROJECT NO. 47673

CONSTRUCTION WORK
FUEL TANK MODIFICATION & ENVIRONMENTAL REMEDIATION
– NORTHERN REGION
SERVICE CONTRACT
GNARESP CORNING TOWER
ALBANY, NY 12242

May 21, 2025

<p>NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.</p>
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DRAWINGS

1. Revised Drawings:
 - a. The drawing set that accompanies this Addendum, noted “ADDENDUM 01 C 5/21/25”, will replace the original contract drawing set in its entirety.

END OF ADDENDUM

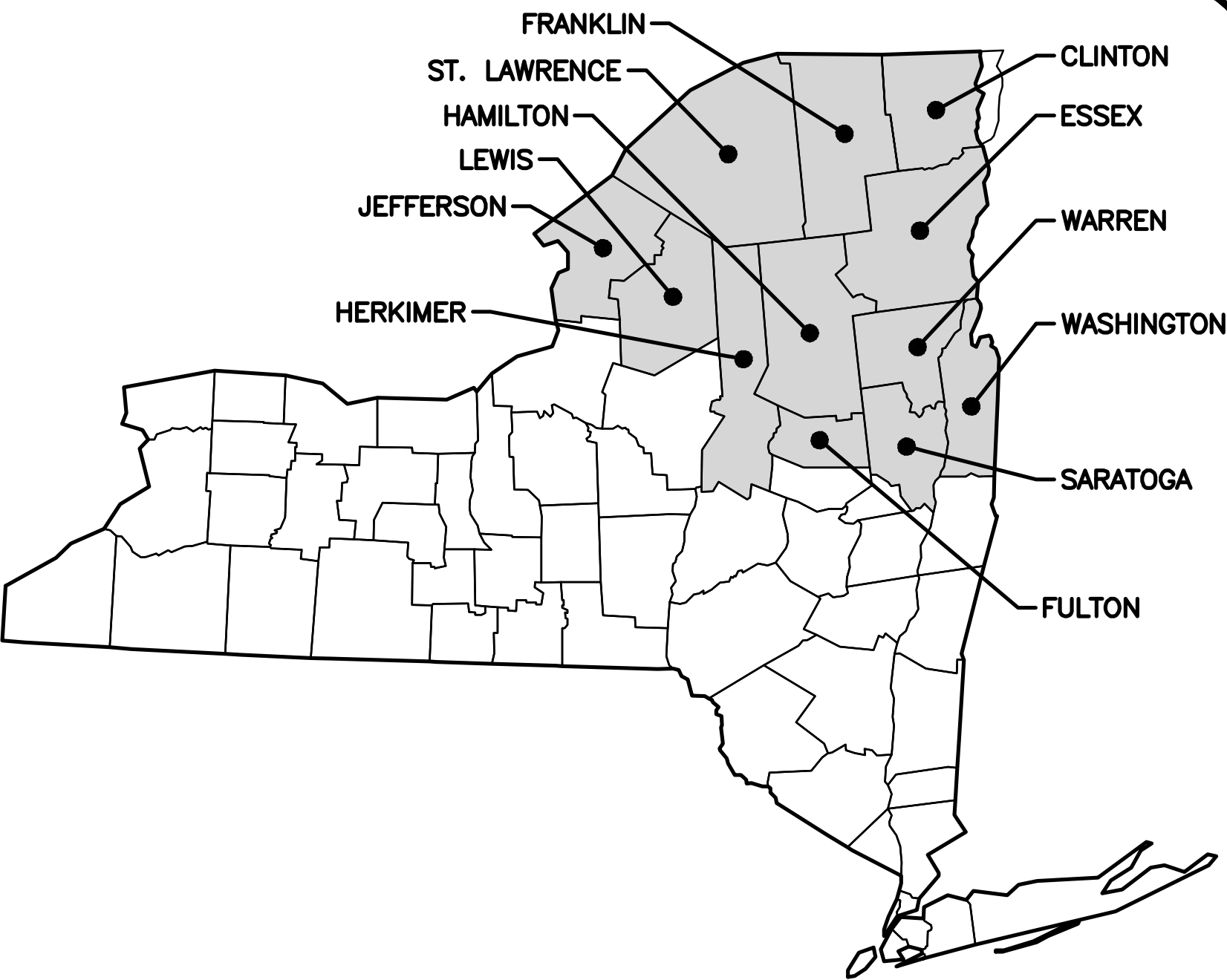
Brady M. Sherlock, P.E.
Director, Division of Design
Design & Construction

FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION

NORTHERN REGION
VARIOUS FACILITIES

O.G.S. PROJECT NO. 47673-C

FINAL SUBMISSION
1/31/2025



KEY PLAN



Office of
General Services

DESIGN & CONSTRUCTION

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		C-49	CONTROL OVERVIEW DETAIL



CODE ITEM	CODE SECTION	REQUIRED/ALLOWED	ACTUAL	COMMENTS
<u>CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION</u>	SECTION 307			
OCCUPANCY H				
<u>CHAPTER 5 – GENERAL BUILDING HEIGHTS AND AREAS</u>				
ALLOWABLE BUILDING HEIGHT (FEET)	TABLE 504.3	65'		
ALLOWABLE NUMBER OF STORIES	TABLE 504.4	2		
ALLOWABLE AREA	TABLE 506.2	9,500 SF		
<u>CHAPTER 10 – MEANS OF EGRESS</u>				
MEANS OF EGRESS ILLUMINATION	SECTION 1008	REQUIRED WITH EMERGENCY POWER		
ACCEPTABLE MEANS OF EGRESS	SECTION 1009	REQUIRED		
COMMON PATH OF EGRESS TRAVEL	SECTION 1029.8	75' MAXIMUM TRAVEL DISTANCE		
<u>CHAPTER 11 – ACCESSIBILITY</u>				
ACCESSIBLE ROUTE	SECTION 1104	REQUIRED		
ACCESSIBLE ENTRANCES	SECTION 1105	REQUIRED		
<u>CHAPTER 12 – VENTILATION</u>	SECTION 1202	MECHANICAL OR NATURAL		
LIGHT: NATURAL/ARTIFICIAL	SECTION 1204.2/1204.3	ARTIFICIAL AND NATURAL		
<u>CHAPTER 27 – ELECTRICAL</u>				
MEANS OF EGRESS ILLUMINATION	SECTION 2702.2.13	REQUIRED		

2020 UNIFORM CODE

101.2 Scope. The provisions of the Uniform Code shall apply to all new and existing buildings, structures, systems and equipment as indicated in Sections 101.2.1 through 101.2.8.

302.2 Additional codes. Alterations, repairs, additions and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this code and the International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code, International Residential Code and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

101.2.2 The Building Code. The provisions of the 2020 Building Code of New York State shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

REQUIRED CODES

1. Under the Uniform Code, all building projects must meet or exceed the following codes and applicable reference standards contained therein.

- a. 2020 Uniform Code, consisting of:
 - 2020 Building Code of New York State
 - 2020 Residential Code of New York State
 - 2020 Existing Building Code of New York State
 - 2020 Fire Code of New York State
 - 2020 Plumbing Code of New York State
 - 2020 Mechanical Code of New York State
 - 2020 Fuel Gas Code of New York State
 - 2020 Property Maintenance Code of New York State
 - 2017 National Electric Code NEPA 70, as referenced in the codes above.
- b. 2020 Energy Code, consisting of:
 - 2020 Energy Conservation Construction Code of New York State
 - 2019 ASHRAE 90.1
- c. 6NYCRR Part 613 Petroleum Bulk Storage
- d. NFPA 30 Flammable and Combustible Liquids Code
- e. NFPA 30A Code for Motor Fuel Dispensing Facilities and Repair Garages
- f. NFPA 110 Standard for Emergency and Standby Power Systems

THE PUBLICATIONS LISTED ABOVE ARE BASED ON THE FOLLOWING DOCUMENTS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL AND ASHRAE INTERNATIONAL:

*2018 International Residential Code (first printing w/ errata)
 2018 International Building Code (first printing w/ errata)
 2018 International Plumbing Code (first printing w/ errata)
 2018 International Mechanical Code (first printing w/ errata)
 2018 International Fuel Gas Code (first printing w/ errata)
 2018 International Fire Code (first printing w/ errata)
 2018 International Property Maintenance Code (first printing w/ errata)
 2018 International Existing Building Code (first printing w/ errata)
 2018 International Energy Conservation Code (first printing w/ errata)
 2016 Edition of the Energy Standard for Buildings Except Low-Rise Residential Buildings (""ASH RAE 90.1-2016"")

CONSTRUCTION SAFEGUARDS

1. SCOPE: THE SAFETY OF THE CONSTRUCTION AREA, AND ADJACENT PUBLIC AND PRIVATE PROPERTIES SAFETY, SHALL BE PROTECTED DURING CONSTRUCTION AND DEMOLITION IN ACCORDANCE WITH THE 2020 EXISTING BUILDING CODE OF NEW YORK STATE (EBCNYS) CHAPTER 15 AND THE 2020 FIRE CODE OF NEW YORK STATE (FCNYS) CHAPTER 33. COMPLIANCE WITH NFPA 241 IS REQUIRED FOR ITEMS NOT SPECIFICALLY ADDRESSED. THIS SPECIFICATION PROSCRIBES MINIMUM SAFEGUARDS FOR CONSTRUCTION TO PROVIDE REASONABLE SAFETY TO LIFE AND PROPERTY FROM FIRE DURING SUCH OPERATIONS.
2. CONSTRUCTION INCLUDES ANY NEW CONSTRUCTION, REMOVALS, REMODELING, ALTERATIONS, REPAIRS OR ADDITIONS TO ANY BUILDING OR STRUCTURE.
3. MAINTENANCE OF SAFE CONDITIONS: REQUIRED SAFETY ELEMENTS SUCH AS EXITS, EXISTING STRUCTURAL MEMBERS, FIRE PROTECTION DEVICES AND SANITARY SAFEGUARDS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT WHERE THE BUILDING IS NOT OCCUPIED OR WHERE SUCH REQUIRED ELEMENTS ARE BEING ALTERED OR REPAIRED AND ADEQUATE SUBSTITUTE PROVISIONS ARE MADE.
4. MEAN OF EGRESS: AN APPROVED PERMANENT OR TEMPORARY MEANS OF EGRESS SHALL BE MAINTAINED. AN EGRESS COMPONENT SHALL NOT BE DESTROYED UNLESS AND UNTIL A SUBSTITUTE MEANS OF EGRESS HAS BEEN PROVIDED.
5. FIRE SAFETY DURING CONSTRUCTION AND REMOVALS: FIRE SAFETY SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF EBCNYS CHAPTER 15 AND FCNYS CHAPTER 33.

- A. FIRE EXTINGUISHERS: PROVIDE PORTABLE FIRE EXTINGUISHERS FOR PROTECTION DURING CONSTRUCTION AND REMOVALS AT EACH STAIRWAY, ON EACH FLOOR LEVEL, WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED, AND IN EVERY STORAGE AND CONSTRUCTION SHED. EXTINGUISHERS SHALL COMPLY WITH FCNYS 906, SIZED FOR ORDINARY HAZARD UNLESS GREATER HAZARD IS SPECIFIED. ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST, SUCH AS THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
 - B. ANY BURNING, CUTTING OR WELDING SHALL REQUIRE A HOT WORK PERMIT AND APPROVAL.
6. MATERIAL HANDLING: EQUIPMENT AND MATERIALS SHALL BE STORED AND PLACED, AND WASTE SHALL BE REMOVED, SO AS NOT TO ENDANGER THE PERSONS OR PROPERTY OR TO IMPEDE A MEANS OF EGRESS. PLACE MATERIAL AND WASTE SO AS NOT TO OBSTRUCT ACCESS TO FIRE HYDRANTS, STANDPIPES, FIRE EXTINGUISHERS, FIRE OR POLICE ALARMS BOXES, CATCH BASINS, MANHOLES, RELEVANT UTILITY STRUCTURES, TRAFFIC OR OBSERVATION OF TRAFFIC SIGNALS. COMBUSTION DEBRIS SHALL NOT BE ACCUMULATED ON SITE, AND SHALL BE REMOVED AT THE END OF EACH WORK SHIFT. RUBBISH CONTAINERS WITH A CAPACITY EXCEEDING 5.33 CUBIC FEET (40 GALLONS OR 0.15 CUBIC METERS) SHALL HAVE TIGHT FITTING OR SELF CLOSING LIDS, AND SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL OR MATERIAL THAT MEETS FCNYS SECTION 3304.2.3 (2).

BUILDING INFORMATION (SPECIFIED ON A SITE BY SITE BASIS):

OCCUPANCY CLASSIFICATION:




CONSTRUCTION CLASSIFICATION:

CLASSIFICATION OF WORK (SPECIFIED ON A SITE BY SITE BASIS):

ALTERATION LEVEL

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) COMPLIANCE

THE DESIGNER OF RECORD SHALL REVIEW FEMA FLOOD HAZARD DATA AND FLOOD INSURANCE RATE MAPS (FIRMS) AND PERFORM A FLOOD RISK ANALYSIS IN, ON A SITE BY SITE BASIS, ACCORDANCE WITH FEMA GUIDELINES AND STANDARDS TO DETERMINE IF THE PROPOSED INSTALLATION IS IN A FLOOD HAZARD AREA. LOCATIONS DETERMINED TO BE IN A AREA OF FLOOD RISK SHALL INCORPORATE FLOOD RESISTANT DESIGN AND CONSTRUCTION REQUIREMENTS IN ACCORDANCE WITH THE NYS BUILDING CODE, NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FEMA, NFPA, AND ASCE REQUIREMENTS.

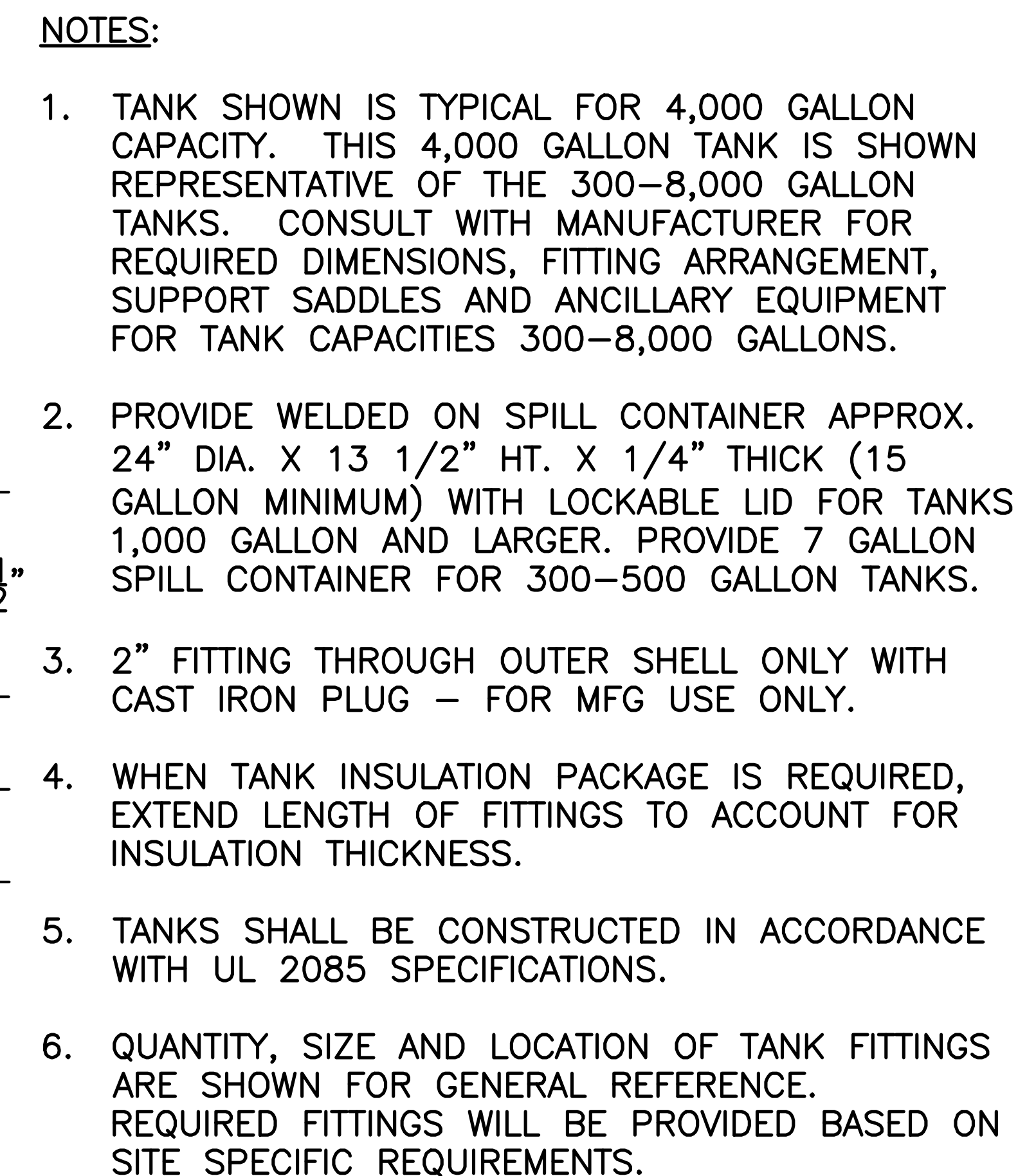
 <p>NEW YORK STATE OF EMPLOYMENT</p>	<p align="center">Office of General Services</p> <hr/> <p align="center">DESIGN & CONSTRUCTION</p>																														
CONSULTANT _____																															
CERTIFICATE OF AUTHORIZATION #: 001790S																															
	<p>LiRo Engineers, Inc.</p> <p><i>3 Aerial Way, Syosset, New York</i></p>																														
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<p>REGISTERED EX-PEES 12/31/2020</p>																															
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">MARK</th> <th style="width: 40%;">DATE</th> <th style="width: 50%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td></td> <td align="center">1/31/2026</td> <td align="center">FINAL SUBMISSION</td> </tr> <tr> <td>PROJECT NUMBER:</td> <td align="center" colspan="2">47673 — C</td> </tr> <tr> <td>DESIGNED BY:</td> <td align="center" colspan="2">M. GUTMANN</td> </tr> <tr> <td>DRAWN BY:</td> <td align="center" colspan="2">A. KELLY</td> </tr> <tr> <td>FIELD CHECK:</td> <td align="center" colspan="2">M. WESOLOWSKI</td> </tr> <tr> <td>APPROVED:</td> <td align="center" colspan="2">M. WESOLOWSKI</td> </tr> <tr> <td colspan="3" style="padding: 5px;"> <p>SHEET TITLE:</p> <p align="center">CODE COMPLIANCE PLAN</p> </td> </tr> <tr> <td colspan="3" style="padding: 5px;"> <p>DRAWING NUMBER:</p> <p align="center" style="font-size: 2em;">G—02</p> </td> </tr> <tr> <td align="center" colspan="3" style="padding: 5px;"> <p>SHEET 2 OF 51</p> </td> </tr> </tbody> </table>		MARK	DATE	DESCRIPTION		1/31/2026	FINAL SUBMISSION	PROJECT NUMBER:	47673 — C		DESIGNED BY:	M. GUTMANN		DRAWN BY:	A. KELLY		FIELD CHECK:	M. WESOLOWSKI		APPROVED:	M. WESOLOWSKI		<p>SHEET TITLE:</p> <p align="center">CODE COMPLIANCE PLAN</p>			<p>DRAWING NUMBER:</p> <p align="center" style="font-size: 2em;">G—02</p>			<p>SHEET 2 OF 51</p>		
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<p>SHEET 2 OF 51</p>																															



1. TANK SHOWN IS TYPICAL FOR 64" INNER DIAMETER 4,000 GALLON CAPACITY. THIS 4,000 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 300-8,000 GALLON TANKS. TANK INNER DIAMETERS MAY VARY BETWEEN 48 INCHES AND 96 INCHES BASED ON SITE SPECIFIC REQUIREMENTS. CONSULT WITH MANUFACTURER FOR REQUIRED DIMENSIONS, FITTING ARRANGEMENT, SUPPORT SADDLES AND ANCILLARY EQUIPMENT FOR TANK CAPACITIES 300-8,000 GALLONS.
2. PROVIDE WELDED ON SPILL CONTAINER APPROX. 24" DIA. X 13 1/2" HT. X 1/4" THICK (15 GALLON MINIMUM) WITH LOCKABLE LID FOR TANKS 1,000 GALLON AND LARGER. PROVIDE 10 GAL SPILL CONTAINER FOR 300-500 GALLON TANKS.
3. SADDLE LOCATION AS PER TANK MANUFACTURER SPECIFICATIONS.
4. 2" FITTING THROUGH OUTER SHELL ONLY WITH CAST IRON PLUG - FOR MFG USE ONLY.
5. WHEN TANK INSULATION PACKAGE IS REQUIRED, EXTEND LENGTH OF FITTINGS TO ACCOUNT FOR INSULATION THICKNESS.
6. TANKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH UL 2085 SPECIFICATIONS.
7. QUANTITY, SIZE AND LOCATION OF TANK FITTINGS ARE SHOWN FOR GENERAL REFERENCE. REQUIRED FITTINGS WILL BE PROVIDED BASED ON SITE SPECIFIC REQUIREMENTS.

CONTRACT:	CONSTRUCTION
TITLE:	FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM
LOCATION:	NORTHERN REGION VARIOUS FACILITIES

	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 - C	
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
<p>TYPICAL TYPE DWS-1 ABOVEGROUND FUEL STORAGE TANK - CYLINDRICAL 4,000 GALLON REFERENCE</p>		
DRAWING NUMBER:		
C-01		
SHEET	3	OF 51

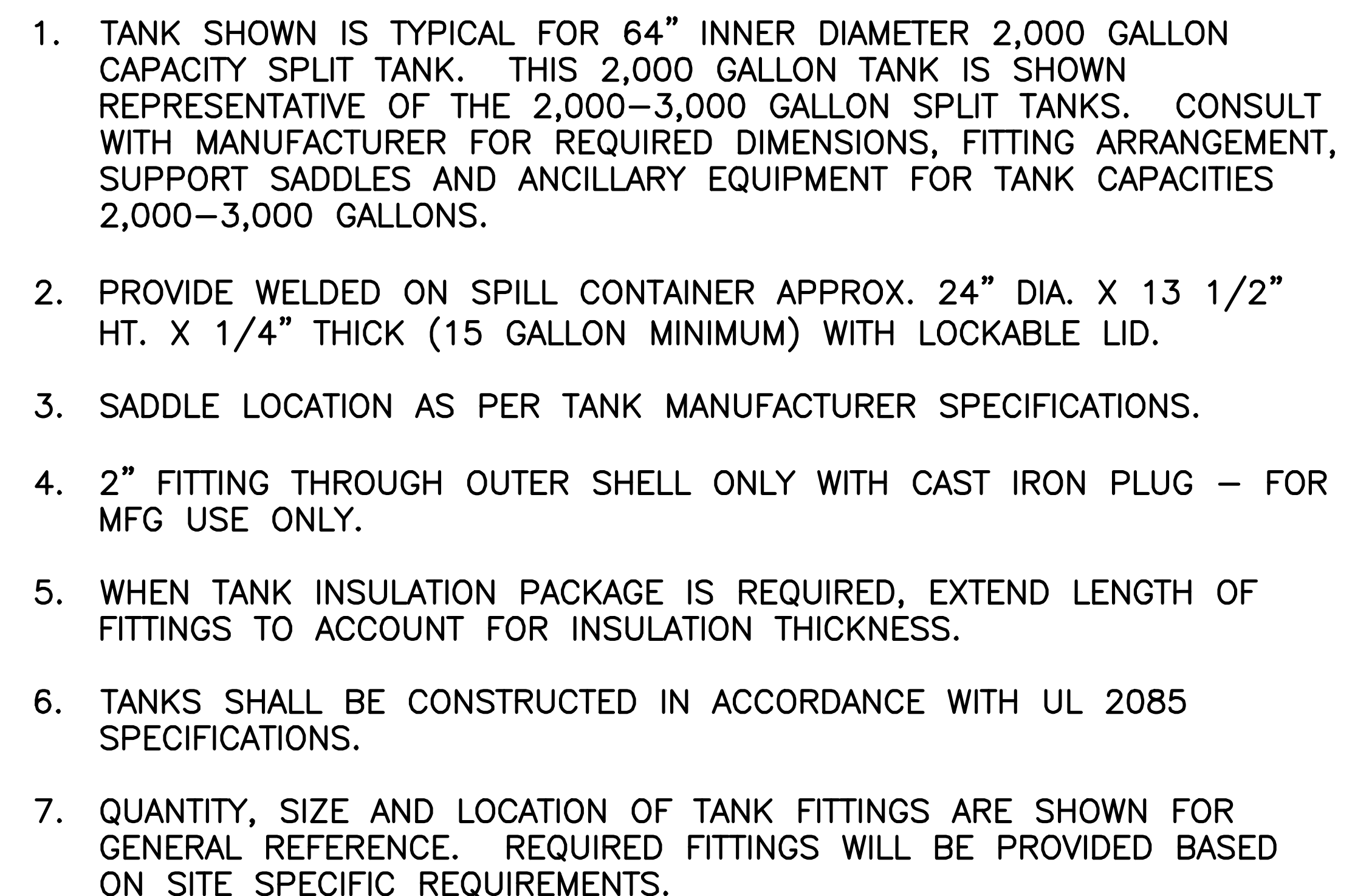


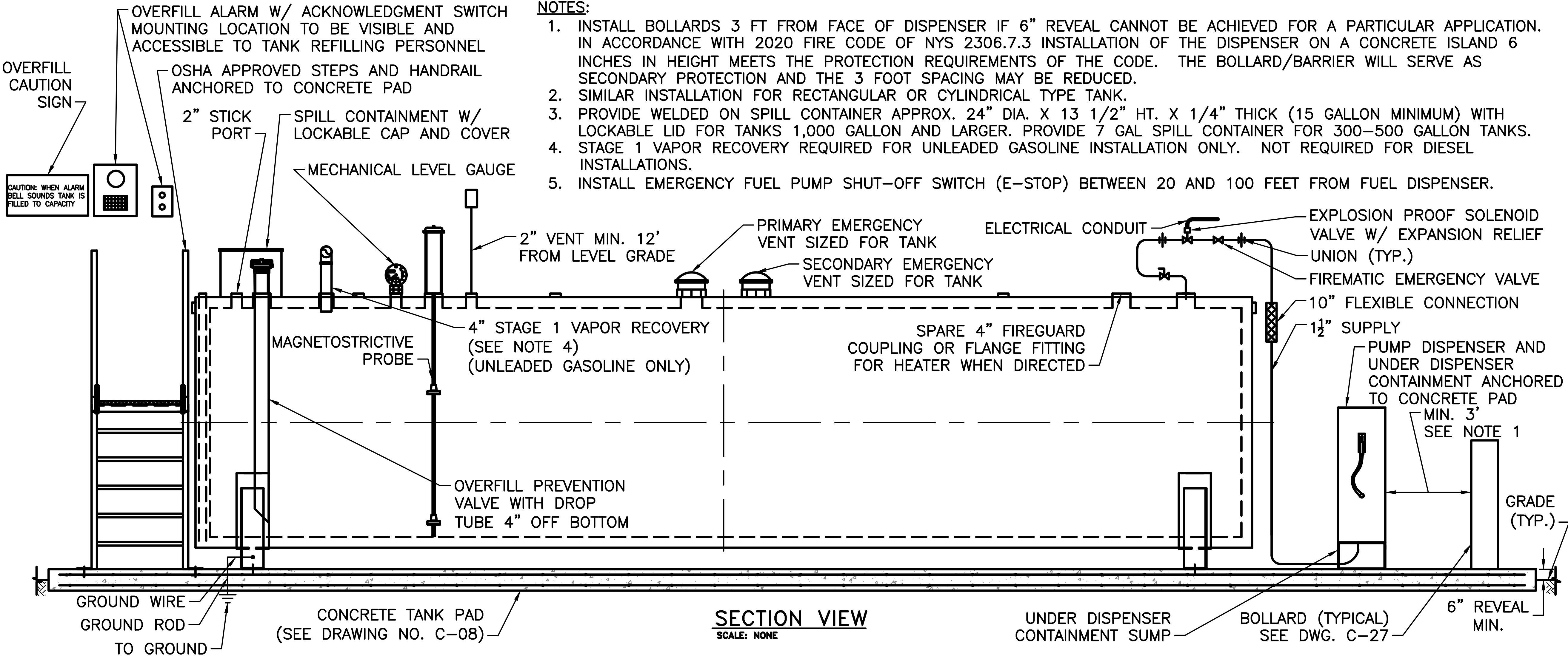


1. TANK SHOWN IS TYPICAL FOR 10,000 GALLON CAPACITY. THIS 10,000 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 10,000–20,000 GALLON TANKS. CONSULT WITH MANUFACTURER FOR REQUIRED DIMENSIONS, FITTING ARRANGEMENT, SUPPORT SADDLES AND ANCILLARY EQUIPMENT FOR OTHER TANK CAPACITIES.
2. PROVIDE WELDED ON SPILL CONTAINER APPROX. 24" DIA. X 13 1/2" HT. X 1/4" THICK (15 GALLON MINIMUM) WITH LOCKABLE LID.
3. SADDLE LOCATION AS PER TANK MANUFACTURER SPECIFICATIONS.
4. 2" FITTING THROUGH OUTER SHELL ONLY WITH CAST IRON PLUG – FOR MFG USE ONLY.
5. WHEN TANK INSULATION PACKAGE IS REQUIRED, EXTEND LENGTH OF FITTINGS TO ACCOUNT FOR INSULATION THICKNESS.
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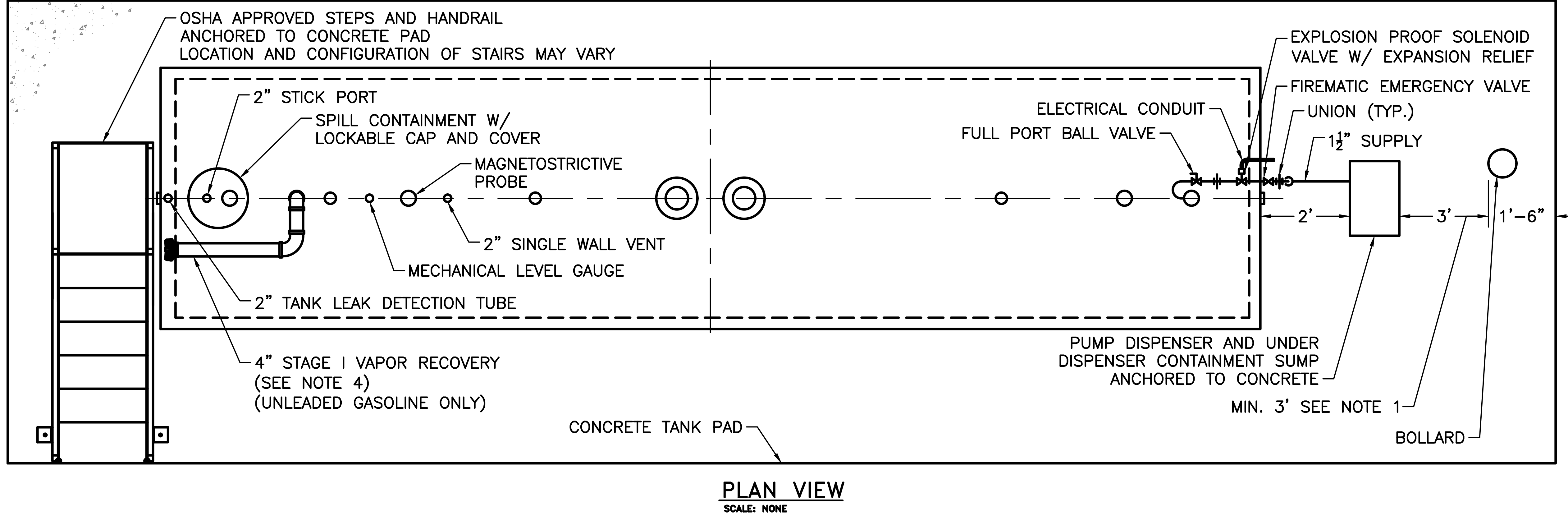


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SHEET TITLE:		
TYPICAL TYPE DWS-1 ABOVEGROUND FUEL OP STORAGE TANK — CYLINDRICAL 10,000 GALLON REFERENCE		
DRAWING NUMBER:		
C-03		
SHEET	5	OF 51





- NOTES:**
1. INSTALL BOLLARDS 3 FT FROM FACE OF DISPENSER IF 6" REVEAL CANNOT BE ACHIEVED FOR A PARTICULAR APPLICATION. IN ACCORDANCE WITH 2020 FIRE CODE OF NYS 2306.7.3 INSTALLATION OF THE DISPENSER ON A CONCRETE ISLAND 6 INCHES IN HEIGHT MEETS THE PROTECTION REQUIREMENTS OF THE CODE. THE BOLLARD/BARRIER WILL SERVE AS SECONDARY PROTECTION AND THE 3 FOOT SPACING MAY BE REDUCED.
 2. SIMILAR INSTALLATION FOR RECTANGULAR OR CYLINDRICAL TYPE TANK.
 3. PROVIDE WELDED ON SPILL CONTAINER APPROX. 24" DIA. X 13 1/2" HT. X 1/4" THICK (15 GALLON MINIMUM) WITH LOCKABLE LID FOR TANKS 1,000 GALLON AND LARGER. PROVIDE 7 GAL SPILL CONTAINER FOR 300-500 GALLON TANKS.
 4. STAGE 1 VAPOR RECOVERY REQUIRED FOR UNLEADED GASOLINE INSTALLATION ONLY. NOT REQUIRED FOR DIESEL INSTALLATIONS.
 5. INSTALL EMERGENCY FUEL PUMP SHUT-OFF SWITCH (E-STOP) BETWEEN 20 AND 100 FEET FROM FUEL DISPENSER.



NEW YORK
STATE
OFFICE OF
GENERAL SERVICES

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

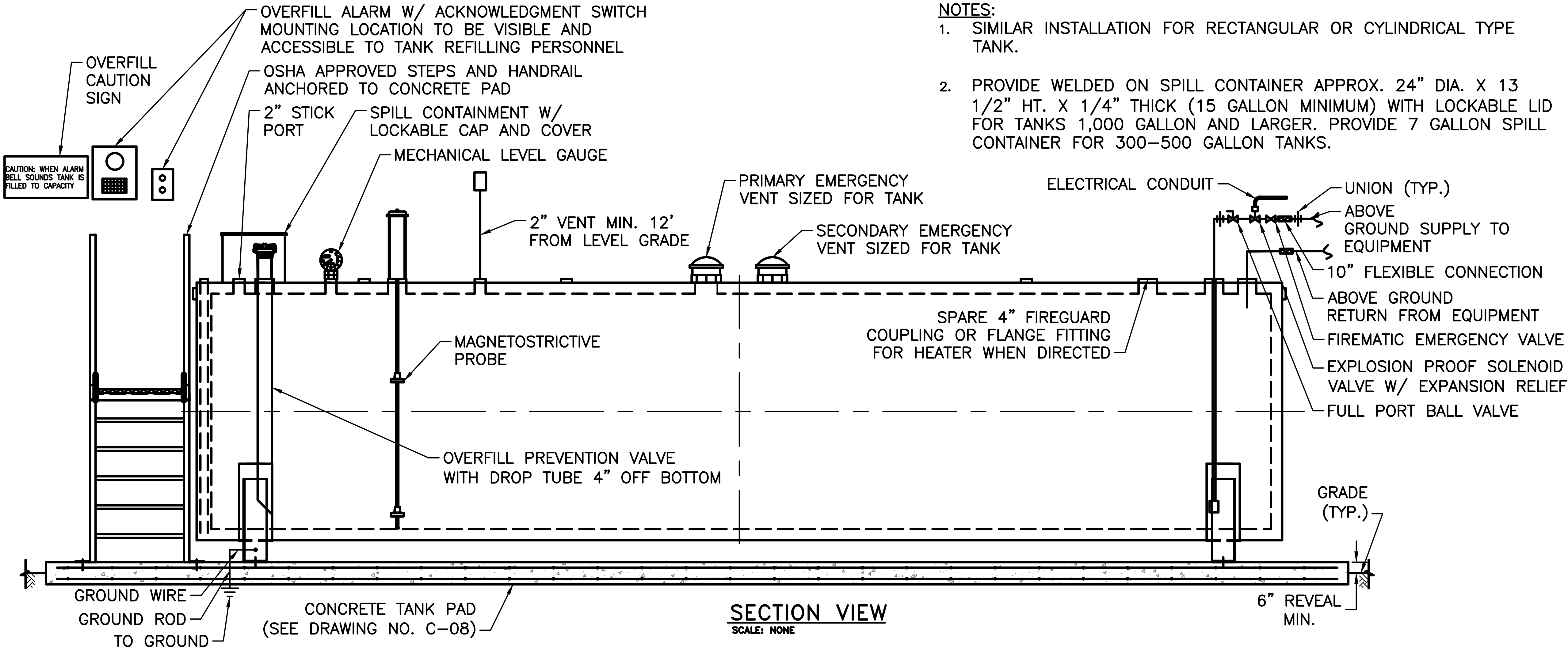
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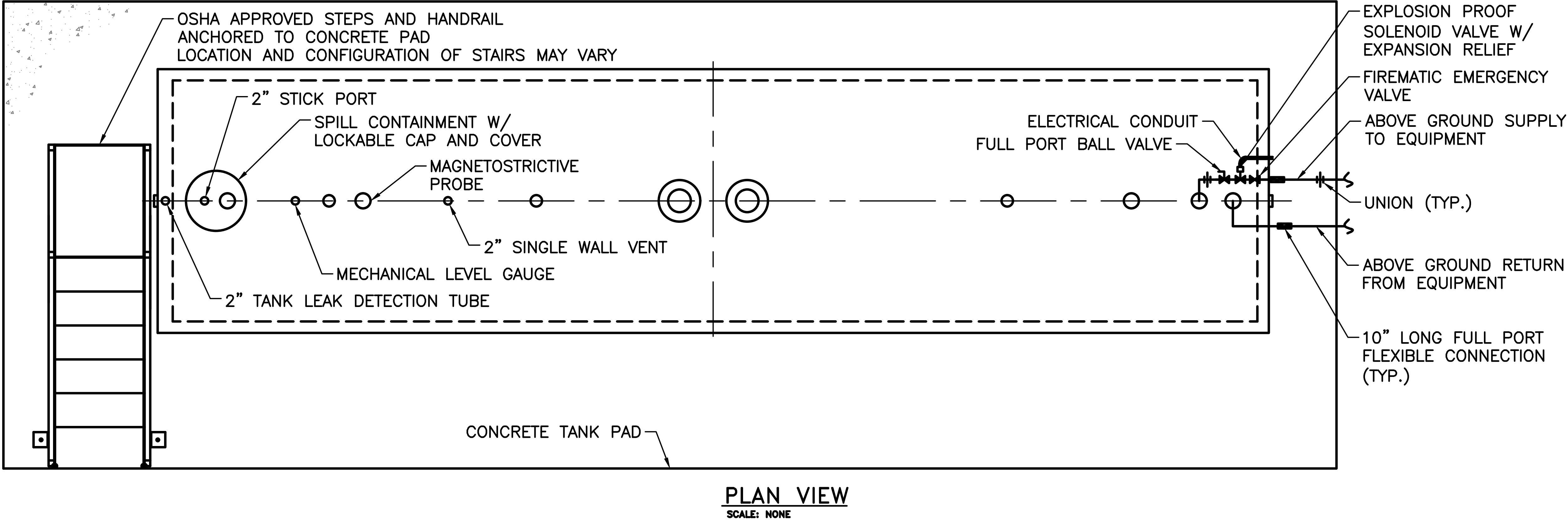
SHEET TITLE:
TYPICAL TYPE DWS-1
ABOVEGROUND MOTOR FUEL
STORAGE TANK WITH
TYPE UG-1 OR D-1
INSTALLATION PACKAGE


DRAWING NUMBER:
C-05

SHEET 7 OF 51



- NOTES:
1. SIMILAR INSTALLATION FOR RECTANGULAR OR CYLINDRICAL TYPE TANK.
 2. PROVIDE WELDED ON SPILL CONTAINER APPROX. 24" DIA. X 13 1/2" HT. X 1/4" THICK (15 GALLON MINIMUM) WITH LOCKABLE LID FOR TANKS 1,000 GALLON AND LARGER. PROVIDE 7 GALLON SPILL CONTAINER FOR 300-500 GALLON TANKS.






NEW YORK
STATE OF
EMPLOYMENT

Office of
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DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905




LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT
FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE
NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS
AND IS A CLASS "A" MISDEMEANOR.



STATE OF NEW YORK
ARCHITECT
NO. 01018
12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

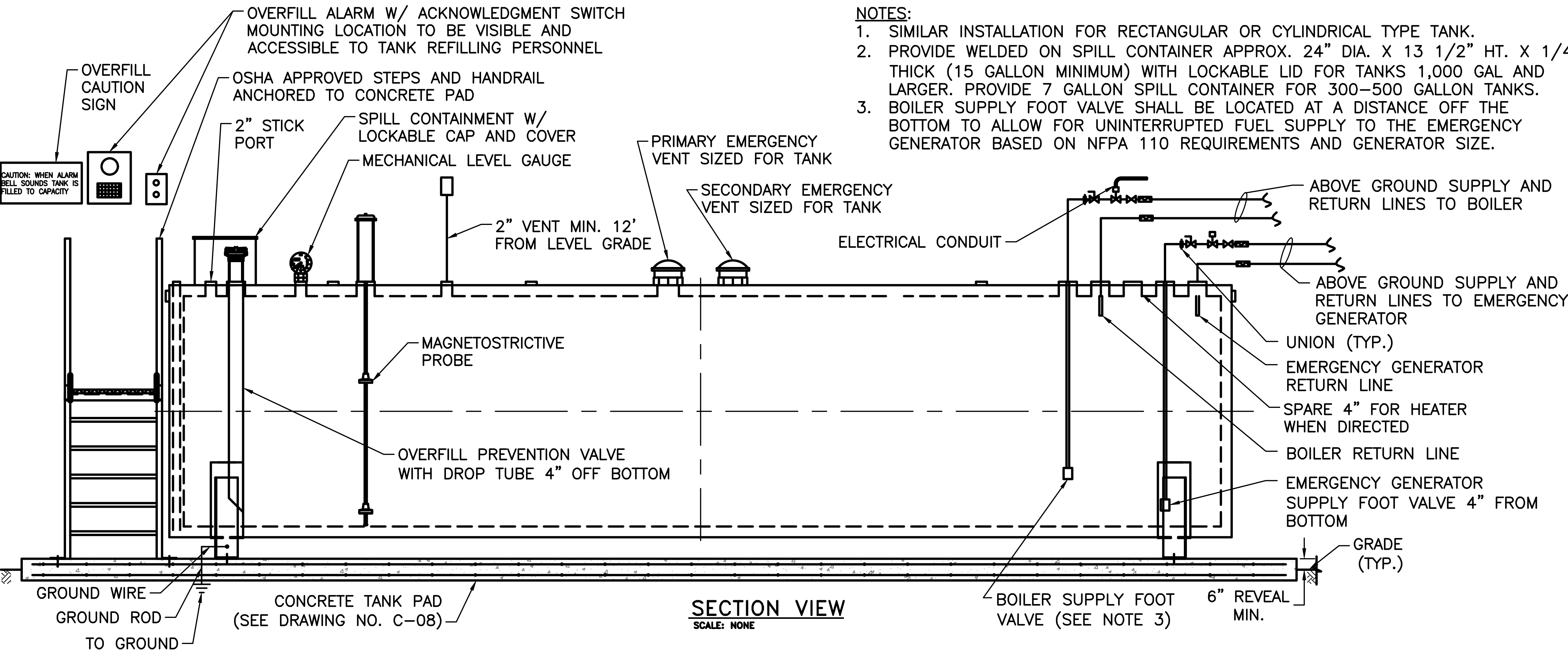
FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

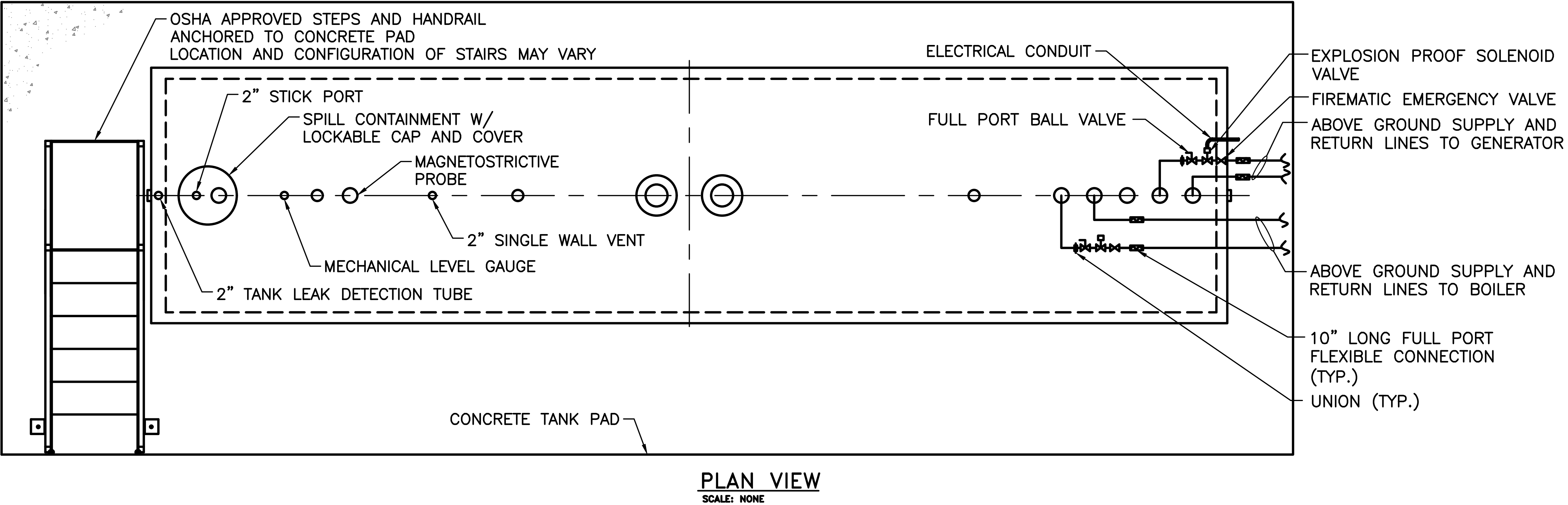
SHEET TITLE:
TYPICAL TYPE DWS-1
ABOVEGROUND FUEL OIL
STORAGE TANK WITH
TYPE FO-1 INSTALLATION
PACKAGE

DRAWING NUMBER:
C-06

SHEET 8 OF 51



- NOTES:
1. SIMILAR INSTALLATION FOR RECTANGULAR OR CYLINDRICAL TYPE TANK.
 2. PROVIDE WELDED ON SPILL CONTAINER APPROX. 24" DIA. X 13 1/2" HT. X 1/4" THICK (15 GALLON MINIMUM) WITH LOCKABLE LID FOR TANKS 1,000 GAL AND LARGER. PROVIDE 7 GALLON SPILL CONTAINER FOR 300-500 GALLON TANKS.
 3. BOILER SUPPLY FOOT VALVE SHALL BE LOCATED AT A DISTANCE OFF THE BOTTOM TO ALLOW FOR UNINTERRUPTED FUEL SUPPLY TO THE EMERGENCY GENERATOR BASED ON NFPA 110 REQUIREMENTS AND GENERATOR SIZE.



Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE:

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CONTRACT:

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

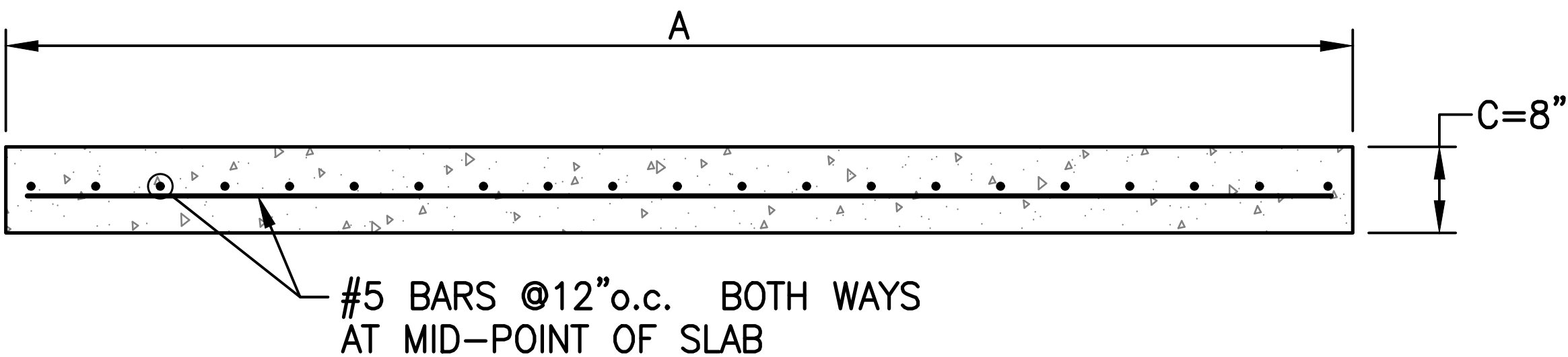
SHEET TITLE:

TYPE DWS-1 AST WITH TWO TYPE FO-1 INSTALLATION PACKAGES - BOILER & EMERGENCY GENERATOR

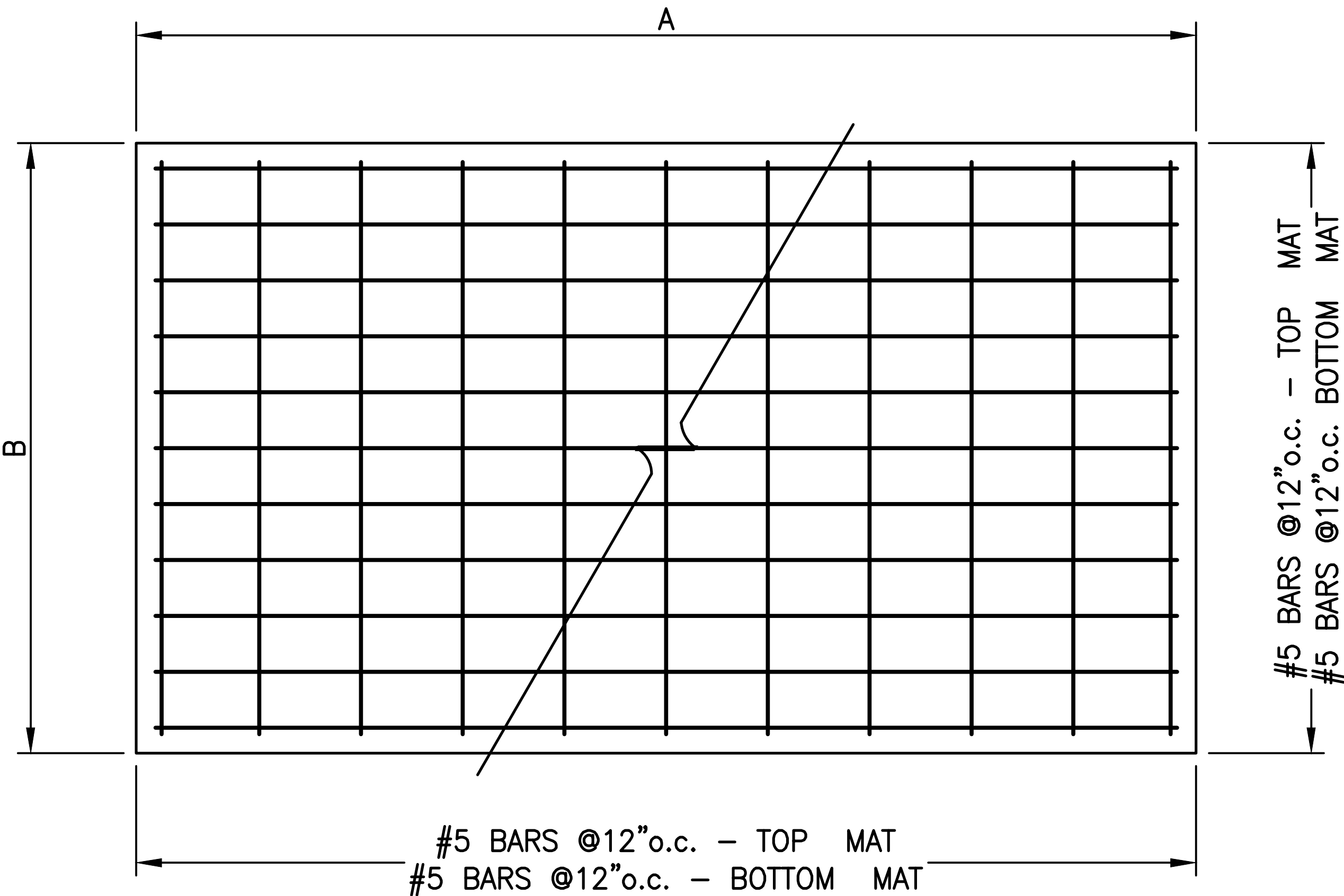
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C-07

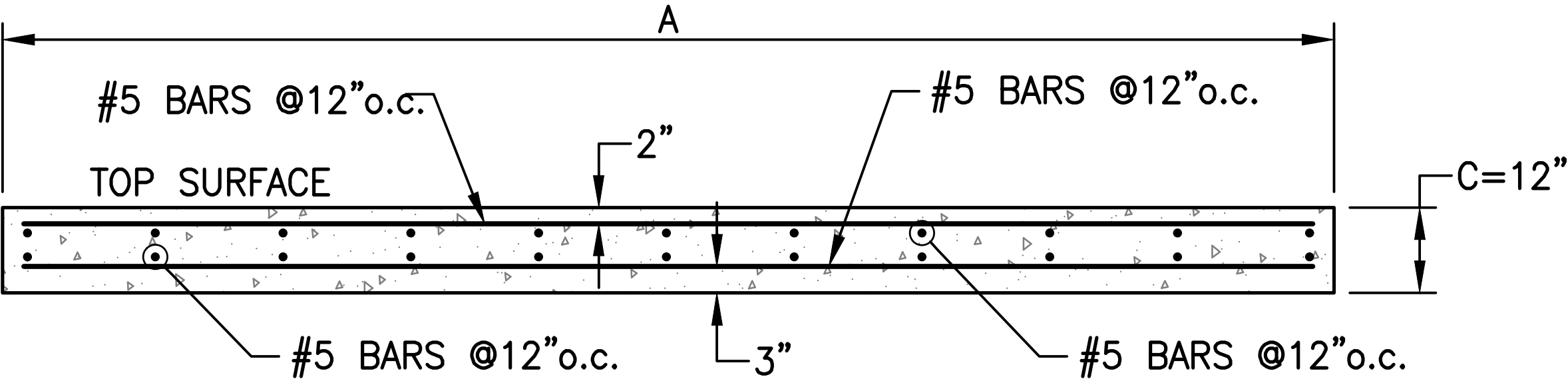
SHEET 9 OF 51



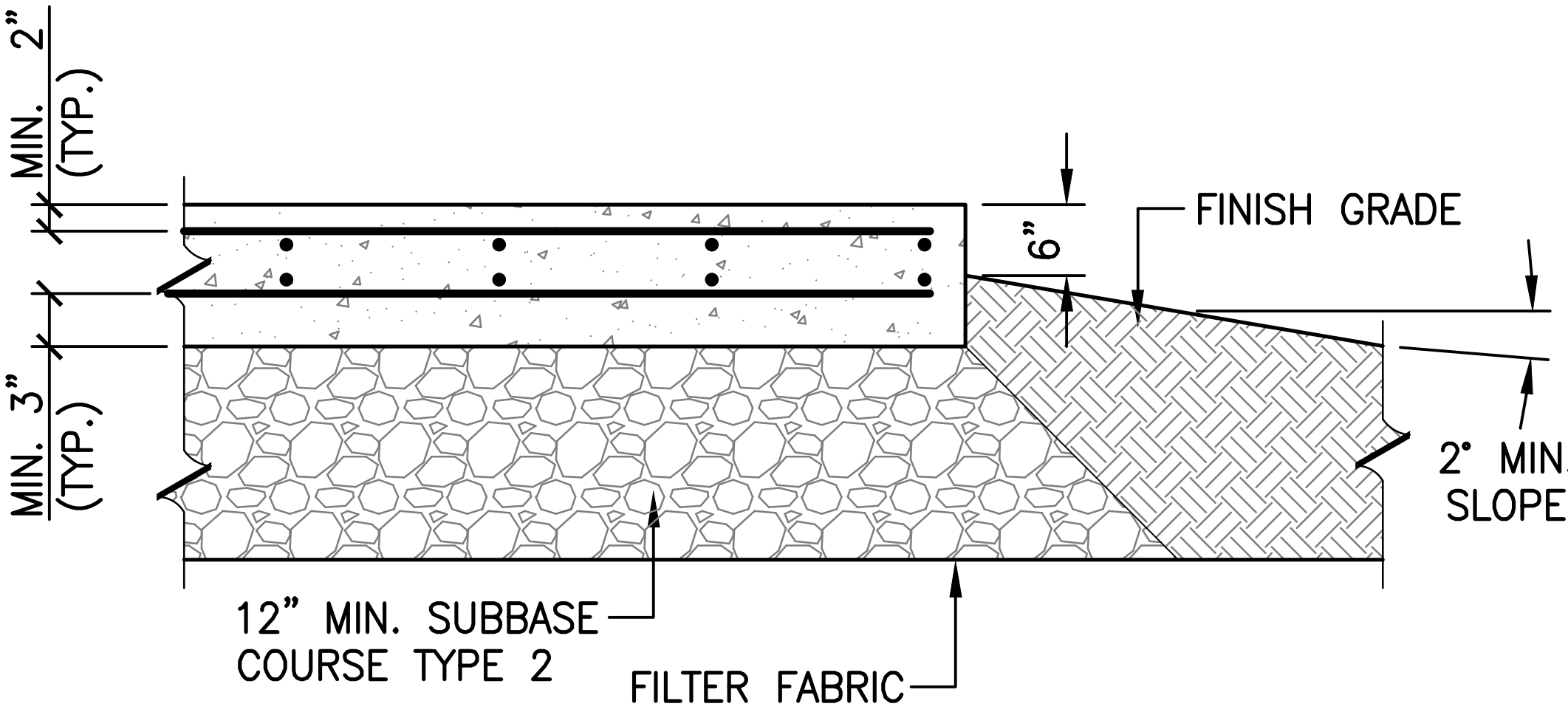
8" CONCRETE PAD ELEVATION
SCALE: NONE



CONCRETE PAD PLAN
SCALE: NONE



12" CONCRETE PAD ELEVATION
SCALE: NONE



TANK PAD FOUNDATION / FILL DETAIL
SCALE: NONE

C = 8" FOR TANKS 250 GALLON THROUGH 2,000 GALLON,
12" FOR TANKS >2,000 GALLON THROUGH 15,000 GALLON,
18" FOR TANKS >15,000 GALLON (SEE NOTE 5)

NOTES:

1. CONCRETE PAD DIMENSIONS SHALL BE DETERMINED BY SITE-SPECIFIC CONDITIONS AND FUEL SYSTEM REQUIREMENTS.
2. PROVIDE A 1/2" CHAMFER AT ALL EXPOSED CORNERS AND EDGES OF CONCRETE SLABS.
3. PROVIDE REBAR WITH CORROSION-RESISTANT EPOXY COATING.
4. SLOPE TANK PAD 1 DEGREE TO PREVENT POOLING OF WATER. PROVIDE SHIM BENEATH TANK ON ONE SIDE TO ENSURE IT IS LEVEL.
5. DESIGN OF TANK SLABS FOR >15,000 GALLON TANKS SHALL BE ON A SITE BY SITE BASIS.
6. FOR STANDARD SLABS, THE LAP LENGTH FOR REBAR SPLICING SHALL BE 40X THE REBAR DIAMETER.

NEW YORK

STATE OF

CONSENT

Office of

General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION

CODE OF NEW YORK STATE:

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STATE OF NEW YORK

MAKIN I. WESOLOWSKI

REGISTERED PROFESSIONAL ENGINEER

12/31/2025

CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

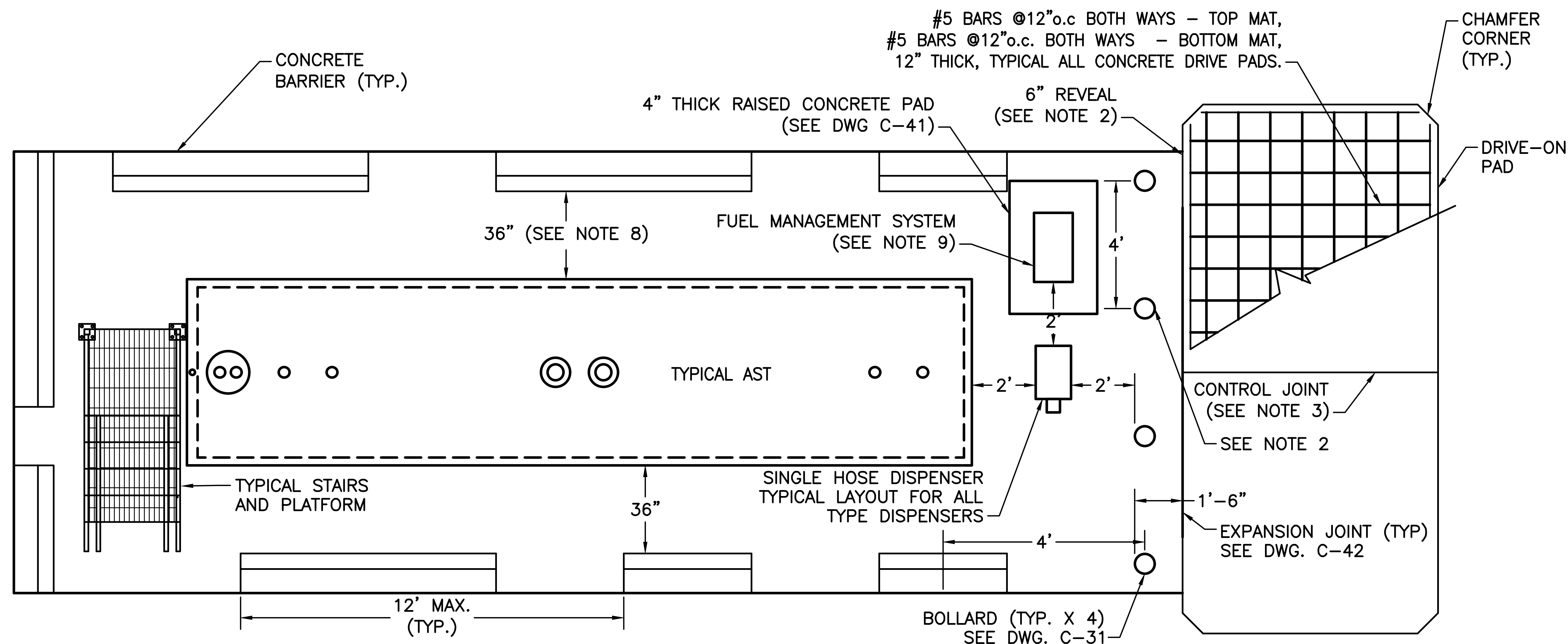
MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:	ABOVEGROUND FUEL STORAGE TANK CONCRETE PAD DETAILS	
DRAWING NUMBER:	C-08	
SHEET	10	OF 51



SCALE: NONE

NOTES:

1. SEE DRAWING C-23, C-24, AND C-25 FOR FIRE SUPPRESSION IF REQUIRED.
2. INSTALL BOLLARDS 3 FT FROM FACE OF DISPENSER IF 6" CURB CANNOT BE ACHIEVED FOR A PARTICULAR APPLICATION. IN ACCORDANCE WITH 2020 FIRE CODE OF NYS 2306.7.3 INSTALLATION OF THE DISPENSER ON A CONCRETE ISLAND 6 INCHES IN HEIGHT MEETS THE PROTECTION REQUIREMENTS OF THE CODE. THE BOLLARD/BARRIER WILL SERVE AS SECONDARY PROTECTION AND THE 3 FOOT SPACING MAY BE REDUCED.
3. CONTROL JOINT PLACEMENT AT MAXIMUM OF 20FT ON CENTER OR MIDPOINT OF ALL CONCRETE PADS.
4. PROVIDE A ½" CHAMFER AT ALL EXPOSED CORNERS AND EDGES OF CONCRETE SLABS.
5. INSTALL EMERGENCY FUEL PUMP SHUT-OFF SWITCH (E-STOP) BETWEEN 20 AND 100 FEET FROM FUEL DISPENSER.
6. BOLLARD PROTECTION IN FRONT OF DISPENSERS AND FUEL MANAGEMENT SYSTEM IS REQUIRED.
7. PROVIDE A 20-POUND ABC-RATED (MINIMUM 40-B:C) FIRE EXTINGUISHER NOT MORE THAN 75 FEET FROM STORAGE TANK.
8. PROVIDE MINIMUM 3 FOOT DISTANCE BETWEEN THE TANK AND BOLLARD/BARRIER FOR NON IMPACT RESISTANT TANKS. IN ACCORDANCE WITH 2020 FIRE CODE OF NYS 2306.4 PHYSICAL PROTECTION, BOLLARDS/BARRIERS ARE NOT REQUIRED FOR UL-2085 IMPACT RESISTANT TANKS. THE BOLLARDS/BARRIERS WILL SERVE AS SECONDARY PROTECTION AND THE 3 FOOT DISTANCE MAY BE REDUCED.
9. FOR ASSET WORKS FUEL MANAGEMENT SYSTEMS, STUB UP ALL REQUIRED CONDUIT IN AN 11" X 11" AREA.



FACT:
CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

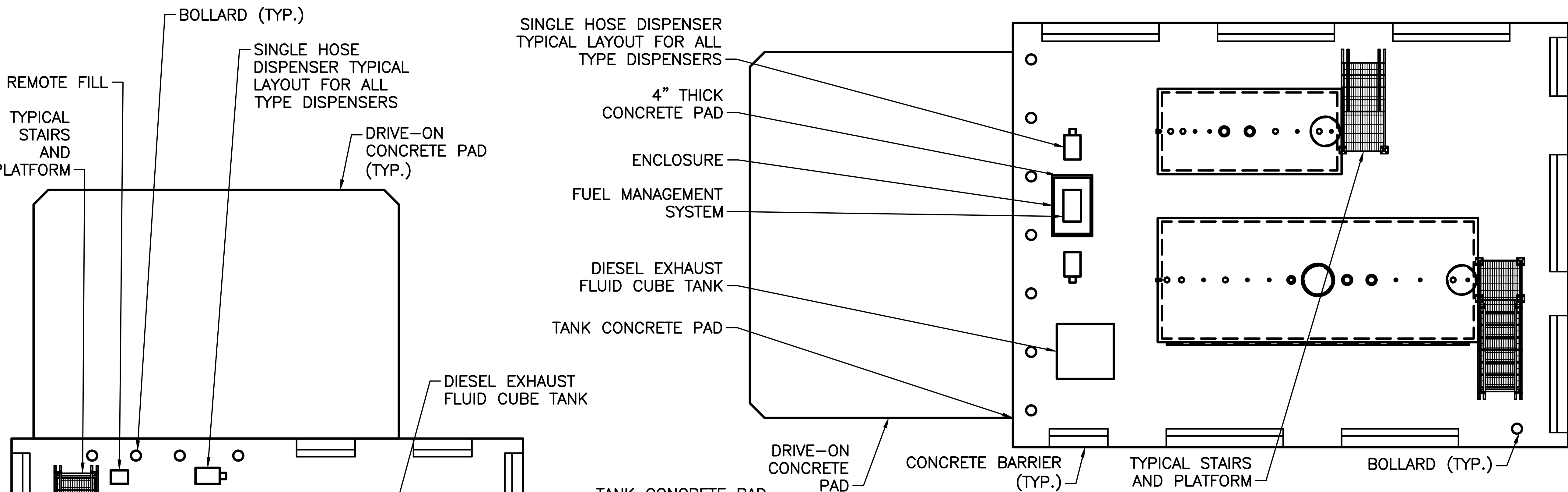
LOCATION: NORTHERN REGION
VARIOUS FACILITIES

	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 - C	
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

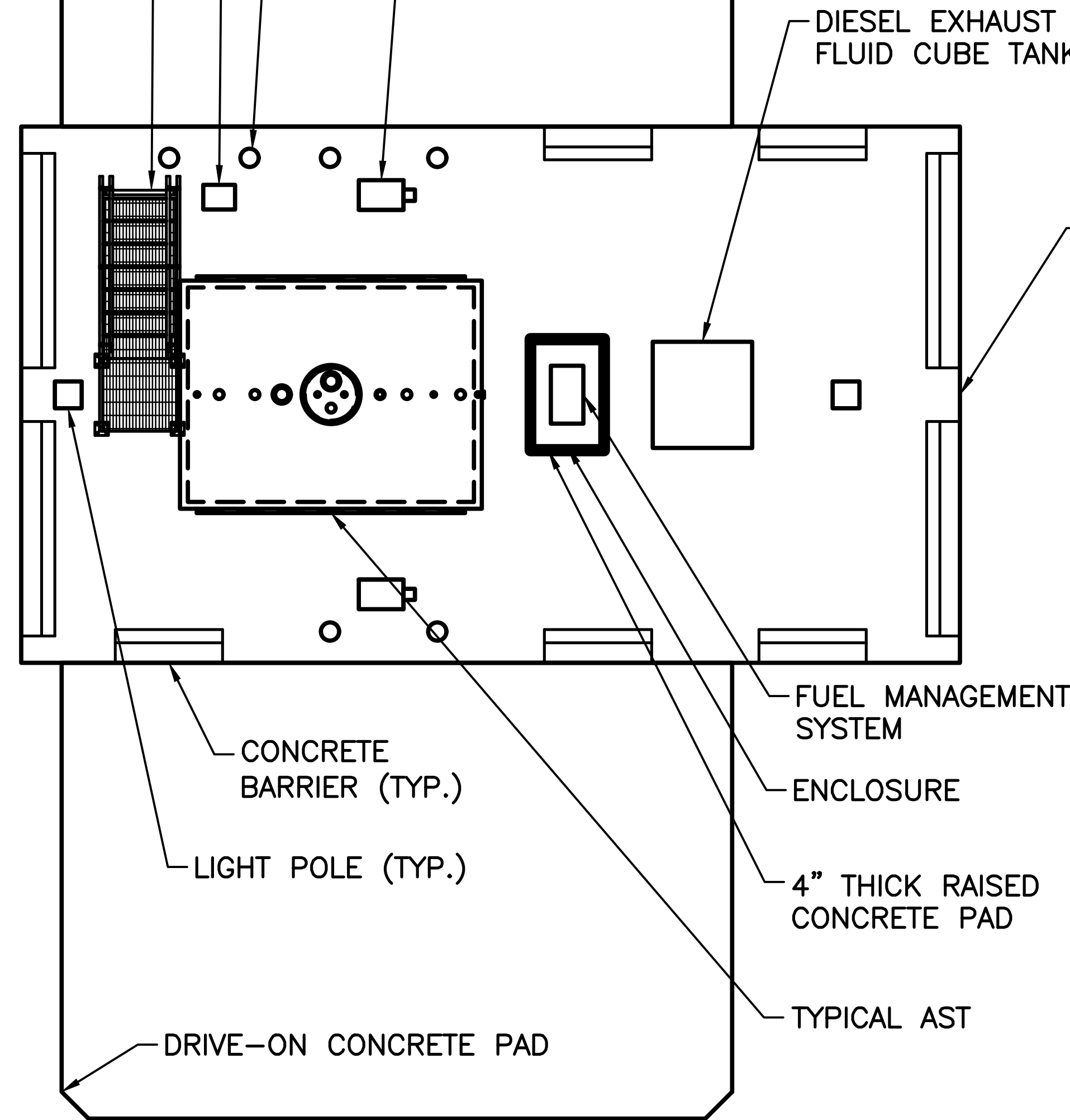
SHEET TITLE:

**ABOVEGROUND FUEL
STORAGE TANK
DISPENSER & ISLAND
CONCRETE PAD DETAIL**

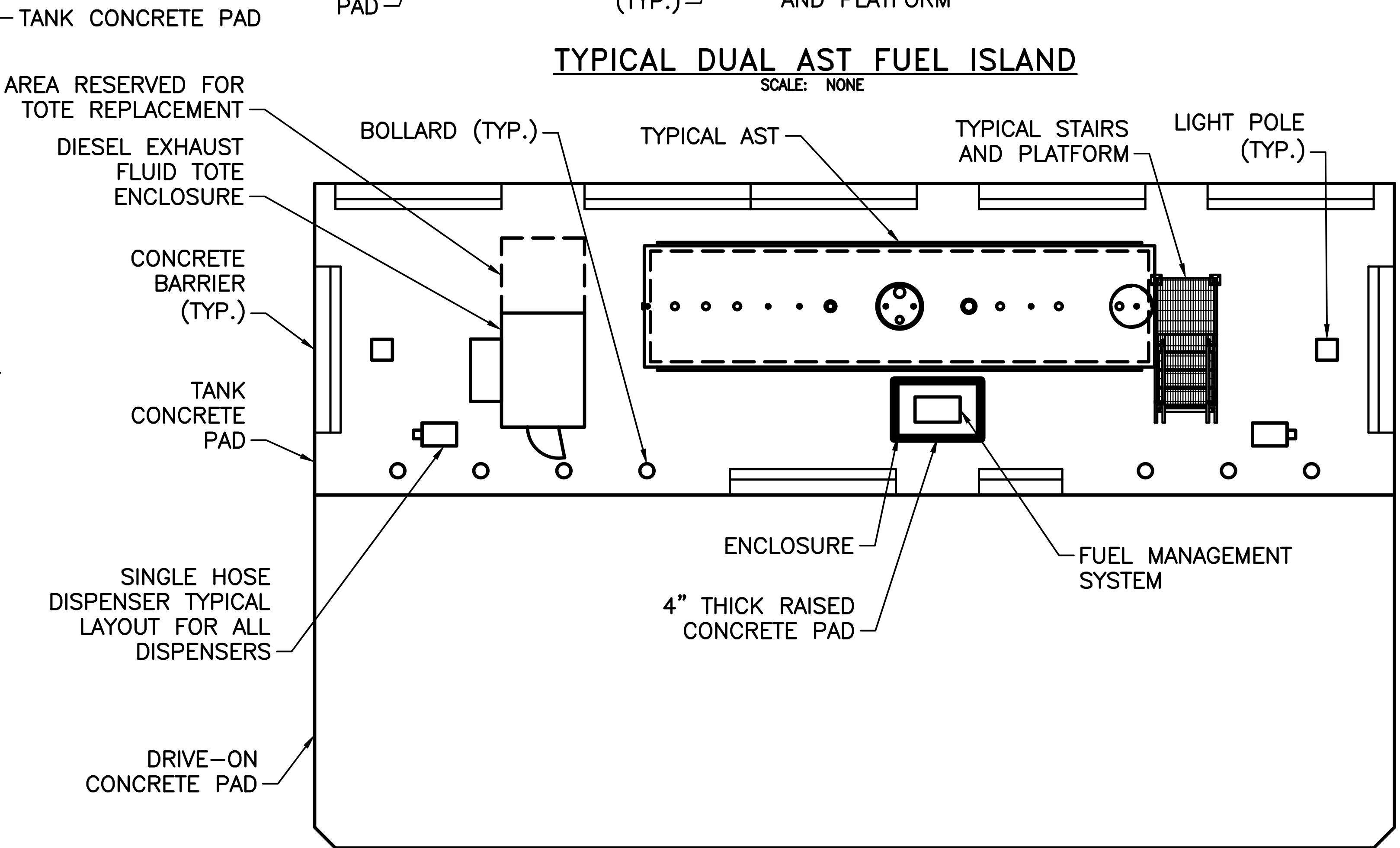
DRAWING NUMBER: C-09



TYPICAL DUAL AST FUEL ISLAND
SCALE: NONE



TYPICAL DUAL DISPENSER/DUAL SIDED
FUEL ISLAND
SCALE: NONE



TYPICAL DUAL DISPENSER/SINGLE SIDED
FUEL ISLAND
SCALE: NONE

NOTE:
1. LAYOUTS SHOWN ARE TYPICAL. LOCATION OF EQUIPMENT AND SIZE OF PADS VARY BASED ON SITE SPECIFIC REQUIREMENTS.

NEW YORK
STATE OF
OCCUPANCY

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

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CODE OF NEW YORK STATE:

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STATE OF NEW YORK
LIBERTY UNIVERSITY
PROFESSIONAL NUMBER
12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:	ABOVEGROUND FUEL STORAGE TANK TYPICAL LAYOUTS	
DRAWING NUMBER:	C-10	
SHEET	12	OF 51

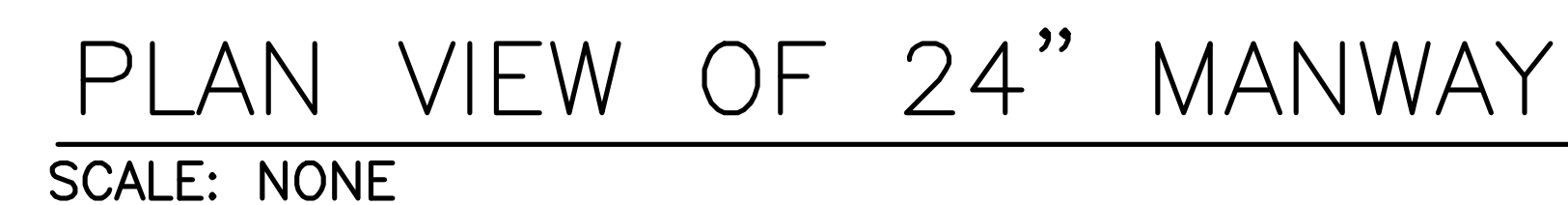


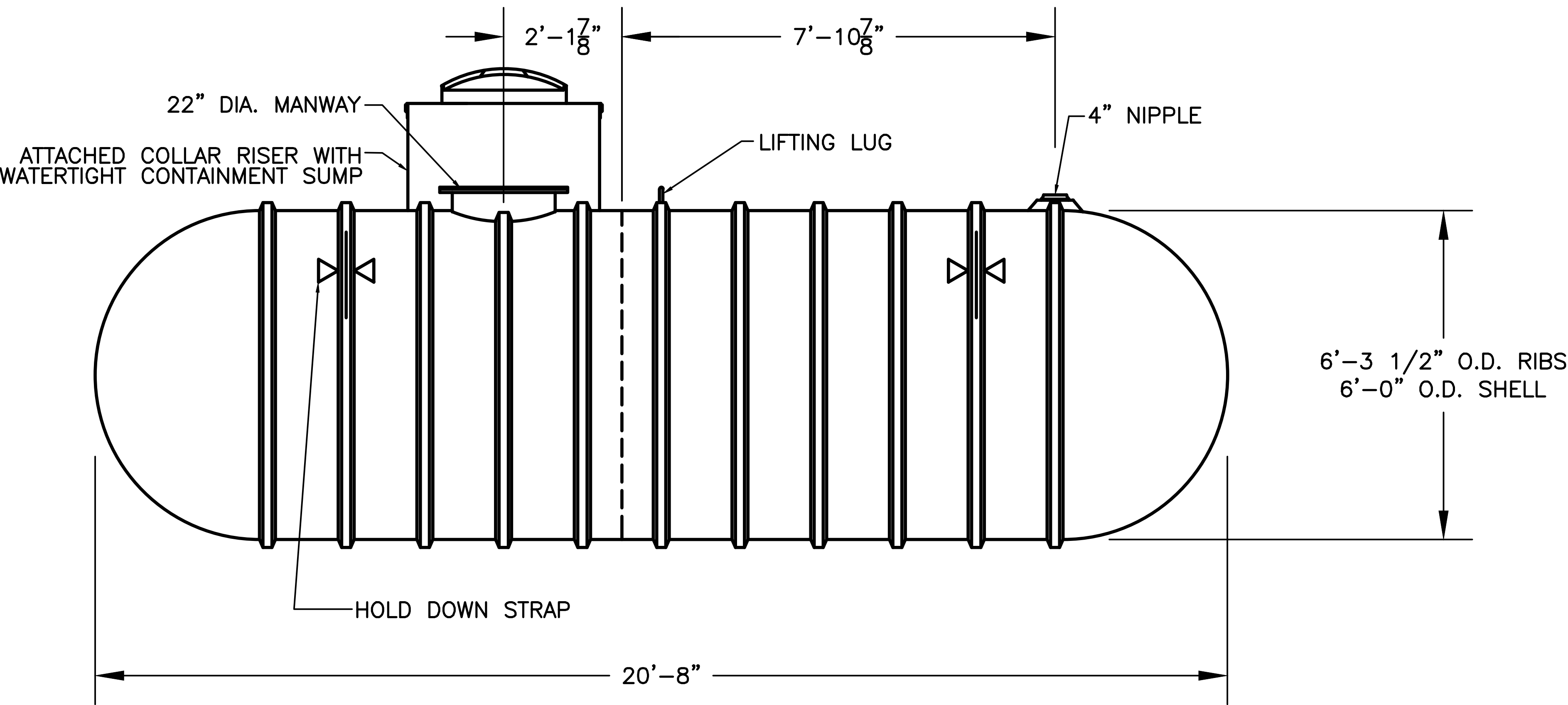
- DEF TANK SHALL INCLUDE:
1. COLD WEATHER PACKAGE WITH LIGHTED, INSULATED AND HEATED ENCLOSURE.
 2. DISPENSER SETUP WITH 50' HOSE REEL AND HOSE.
 3. 110V TOTE PUMP.
 4. IN-LINE PULSE METER FOR TIE-IN TO FUEL MANAGEMENT SYSTEM.
 5. 330 GALLON TOTE WITH FITTING AND FILL COUPLER.
 6. PRE-WIRED AND PRE-PIPED ENCLOSURE. 120 VOLT 20 AMP SERVICE REQUIRED.

DEF TANK SHALL INCLUDE:

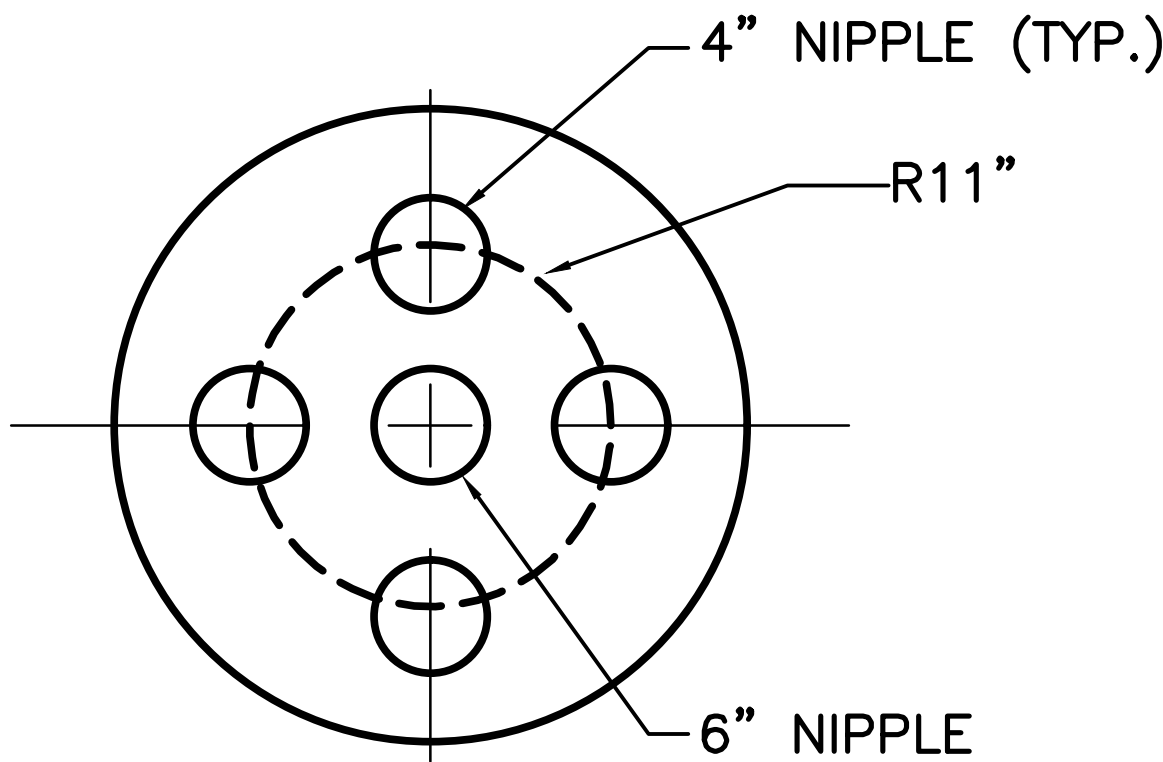
1. COLD WEATHER PACKAGE WITH 500W INTERNAL PROBE HEATER.
2. DISPENSER SETUP WITH 35' HOSE REEL AND HOSE.
3. 6 GPM 120V PUMP.
4. IN-LINE PULSE METER FOR TIE-IN TO FUEL MANAGEMENT SYSTEM.
5. 396 OR 660 GALLON TOTE WITH FITTING AND FILL COUPLER.
6. PRE-WIRED AND PRE-PIPED ENCLOSURE. 120 VOLT 20 AMP SERVICE REQUIRED.








ELEVATION VIEW
SCALE: NONE



22" MANWAY PLAN VIEW
SCALE: NONE

- NOTE:
1. TANK SHOWN IS TYPICAL FOR DOUBLEWALL FIBERGLASS 4,000 GALLON CAPACITY. THIS 4,000 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 500-8,000 GALLON TANKS. CONSULT WITH MANUFACTURER FOR CAPACITIES OF 500-8,000 GALLONS AND SPECIFIC FITTING ARRANGEMENT.




Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985




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3 Aerial Way, Syosset, New York

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STATE OF NEW YORK
MAKIN I. WESOLOWSKI
NO. 07044
LICENSED PROFESSIONAL ENGINEER
REGISTERED 12/31/2025

CONTRACT:

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

DOUBLE WALL FIBERGLASS
UNDERGROUND FUEL
STORAGE TANK
4,000 GALLON REFERENCE

DRAWING NUMBER:

C-14

SHEET

16

OF

51

PROVIDED EQUIPMENT

1. 150# R.F.S.O. FLANGE W/ 2" FNPT FOR VENT

2. 4"Ø FNPT FOR GAUGE WITH PLUG

3. VELOCITY HEAD DIFFUSION BAFFLE

4. WEAR PLATE

5. SEDIMENT CHAMBER

6. UNDERFLOW BAFFLE (REMOVABLE)

7. SLUDGE BAFFLE

8. STRIKER PLATES

9. PARALLEL CORRUGATED PLATE COALESCER. CORELLA PVC PLATES (3" PLATE SPACING)

10. OIL/WATER SEPARATOR CHAMBER

11. 6" THICK PETROSCREEN COALESCER MATERIAL INSTALLED W/ PULL ROD SHIPPED LOOSE

12. STEEL OUTLET DOWNCOMER

13. 18"Ø MANWAY WITH NEO-CORK GASKETS. BOLT-ON EXTENSION SHIPPED LOOSE

14. 4"Ø FNPT FOR OIL PUMP-OUT WITH INTERNAL PVC PIPE INSTALLED & RISER PIPE SHIPPED LOOSE

15. 2"Ø FNPT FOR LEVEL SENSOR WITH RISER PIPE SHIPPED LOOSE

16. LIFTING LUG

17. 2"Ø FNPT FOR VENT

18. 2"Ø FNPT FOR LEAK SENSOR WITH RISER PIPE SHIPPED LOOSE

ANCILLARY PROVIDED EQUIPMENT

4) 18" NEO-CORK MANWAY GASKETS

4) SETS OF NUTS/BOLTS/WASHERS FOR 18" MANWAY

NOTES

1. POLYURETHANE HIGHGUARD TANK IS NOT APPROVED FOR THE STORAGE OF HEATED PRODUCTS

2. ALL VENT PIPING BY INSTALLER

3. 15000 VOLT SPARK TEST PROVIDED AT FACTORY

END VIEW
SCALE: NONE

ELEVATION VIEW
SCALE: NONE

PLAN VIEW
SCALE: NONE

NOTE:
1. SEPARATOR SHOWN IS TYPICAL FOR JACKETED DOUBLE-WALL STEEL 550-GALLON CAPACITY. CONSULT WITH MANUFACTURER FOR CAPACITIES OTHER THAN 550 GALLONS AND SPECIFIC FITTING AND MANWAY ARRANGEMENTS.

GENERAL SPECIFICATIONS

NO. REQ'D: (1)
CAPACITY: 550 GALLONS
TYPE: HTC, HIGHGUARD, DW TYPE I 360
MATERIAL: MILD CARBON STEEL
FLOW RATE: 55 GPM
GAUGE: BASED ON 60" MAX BURIAL
INNER OUTER
SHELL- 7 GA. 10 GA.
HEADS- 7 GA. 10 GA.
SURFACE PREP:
SSPC NO.6 BLAST ALL EXTERIOR SURFACES

COATING: MATERIAL THICKNESS
EXTERIOR- HIGHGUARD (75 MILS)
INTERIOR- NONE
CONSTRUCTION :
LAP FIT & WELD ALL EXTERIOR SEAMS
OPERATING PRESSURE : ATMOSPHERIC

NEW YORK
STATE
OFFICE OF
GENERAL SERVICES

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION
CODE OF NEW YORK STATE:

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STATE OF NEW YORK
MAKIN I. WESOLOWSKI
REGISTERED PROFESSIONAL ENGINEER
12/31/2025

CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
1/31/2025	FINAL SUBMISSION	

PROJECT NUMBER:

47673 - C

DESIGNED BY:

M. GUTMANN

DRAWN BY:

A. KELLY

FIELD CHECK:

M. WESOLOWSKI

APPROVED:

M. WESOLOWSKI

SHEET TITLE:

TYPICAL DOUBLE-WALL STEEL JACKETED 2 COMPARTMENT OIL/WATER SEPARATOR

DRAWING NUMBER:

C-15

SHEET 17 OF 51

NEW YORK
STATE OF
CIVIL SERVICE

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

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STATE OF NEW YORK
MAKIN I. WESOLOWSKI
NO. 07034
LICENSED PROFESSIONAL ENGINEER
REGISTERED 12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER:

47673 - C

DESIGNED BY:

M. GUTMANN

DRAWN BY:

A. KELLY

FIELD CHECK:

M. WESOLOWSKI

APPROVED:

M. WESOLOWSKI

SHEET TITLE:

TYPICAL DOUBLE-WALL STEEL
JACKETED 3 COMPARTMENT
OIL/WATER SEPARATOR

DRAWING NUMBER:

C-16

SHEET

18

OF

51

PLAN VIEW
SCALE: NONE

ELEVATION VIEW
SCALE: NONE

CONTROL PANEL DETAIL
SCALE: NONE

NOTE:
1. CONTROL PANEL SHOWN IS TYPICAL.
CONTROL PANEL LAYOUT MAY VARY
BASED ON SITE SPECIFIC REQUIREMENTS.

END VIEW
SCALE: NONE

PROVIDED EQUIPMENT

- 150# R.F.S.O. FLANGE W/ 2" FNPT FOR VENT
- 4" FNPT FOR GAUGE WITH PLUG
- VELOCITY HEAD DIFFUSION BAFFLE
- WEAR PLATE
- SEDIMENT CHAMBER
- UNDERFLOW BAFFLE (REMOVABLE)
- SLUDGE BAFFLE
- STRIKER PLATES
- PARALLEL CORRUGATED PLATE COALESCER. CORELLA PVC PLATES (3" PLATE SPACING)
- OIL/WATER SEPARATOR CHAMBER
- 6" THICK PETROSCREEN COALESCER MATERIAL INSTALLED W/ PULL ROD SHIPPED LOOSE
- STEEL TRANSFER PIPE W/ DOWNCOMER
- 24" MANWAY WITH NEO-CORK GASKETS. BOLT-ON EXTENSION SHIPPED LOOSE
- 4" FNPT FOR OIL PUMP-OUT WITH INTERNAL PVC PIPE INSTALLED & RISER PIPE SHIPPED LOOSE
- 2" FNPT FOR LEVEL SENSOR WITH RISER PIPE SHIPPED LOOSE
- LIFTING LUG
- 2" FNPT FOR VENT
- 2" FNPT FOR LEAK SENSOR WITH RISER PIPE SHIPPED LOOSE
- 7 GA. BULKHEAD
- EFFLUENT WATER CHAMBER
- PUMP MOUNT
- 4" FNPT FOR EFFLUENT PUMP CONDUIT AND WIRING
- 2" FNPT FOR EFFLUENT LEVEL SENSOR CONDUIT AND WIRING
- RECTANGULAR MANWAY WITH CLOSED CELL SPONGE GASKET. BOLT-ON EXTENSION SHIPPED LOOSE

ANCILLARY PROVIDED EQUIPMENT

- 24" NEO-CORK MANWAY GASKETS
- SETS OF NUTS/BOLTS/WASHERS FOR 24" MANWAY
- 24"x30" CLOSED CELL FOAM MANWAY GASKET
- 24"x30" RUBBER RIBBON MANWAY GASKET
- SETS OF NUTS/BOLTS/WASHERS FOR 24"x30" MANWAY

NOTES

- POLYURETHANE HIGHGUARD TANK IS NOT APPROVED FOR THE STORAGE OF HEATED PRODUCTS
- ALL VENT PIPING BY INSTALLER
- 15000 VOLT SPARK TEST PROVIDED AT FACTORY
- DESIGNER TO PROVIDE EFFLUENT PUMPING INFORMATION FOR PROPER PUMP SIZING & PUMPOUT DESIGN

NOTE:

- SEPARATOR SHOWN IS TYPICAL FOR JACKETED DOUBLE-WALL STEEL 1,000-GALLON CAPACITY. CONSULT WITH MANUFACTURER FOR CAPACITIES OTHER THAN 1,000 GALLONS AND SPECIFIC FITTING AND MANWAY ARRANGEMENTS.

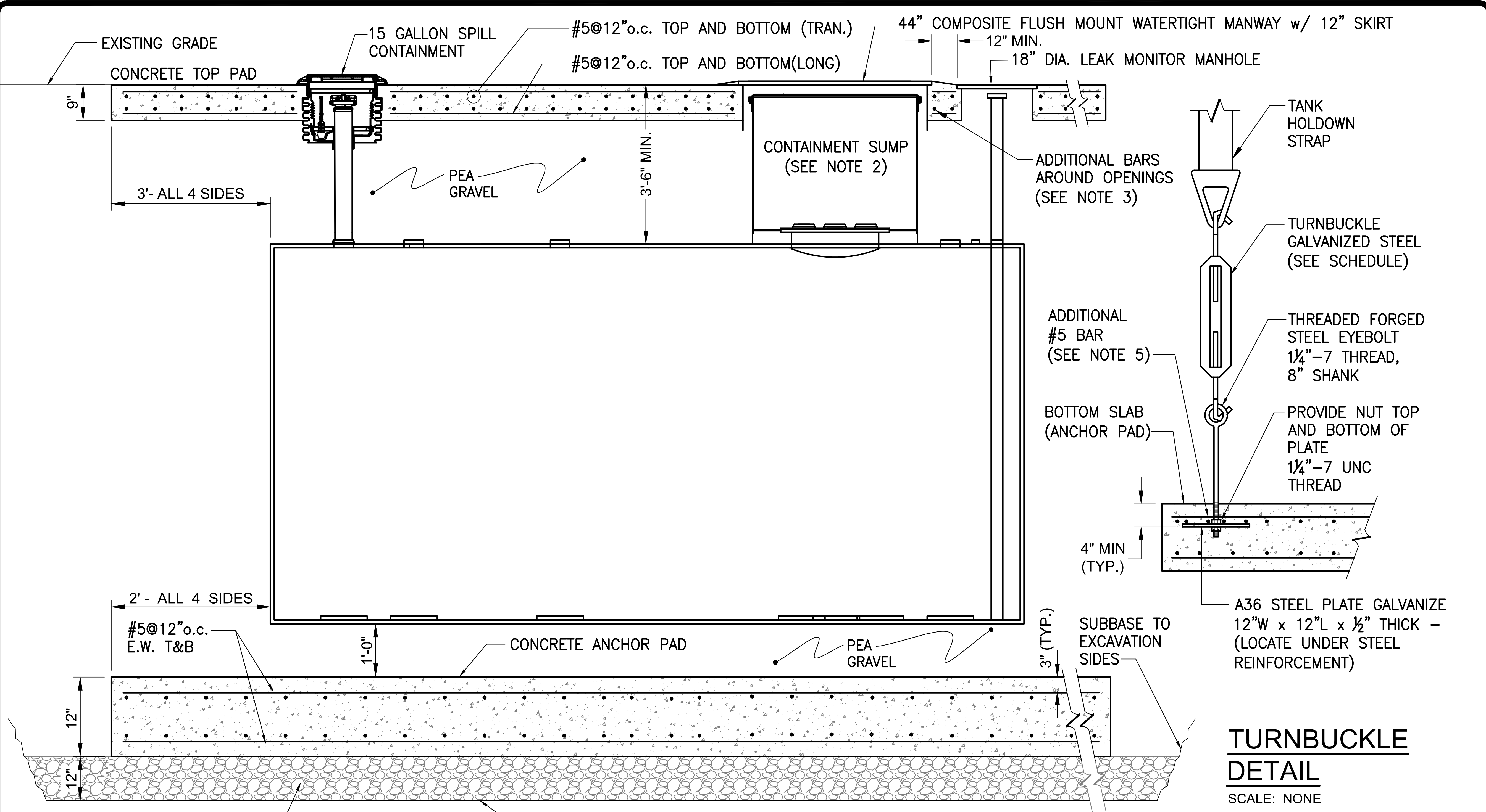
GENERAL SPECIFICATIONS

NO. REQ'D: (1)
CAPACITY: 1000 GALLONS
TYPE: HTC-J, HIGHGUARD, DW TYPE I 360
MATERIAL: MILD CARBON STEEL
FLOW RATE: 100 GPM
GAUGE: BASED ON 60" MAX BURIAL
INNER
SHELL- 7 GA. 10 GA.
HEADS- 7 GA. 10 GA.

SURFACE PREP:
SSPC NO.6 BLAST ALL EXTERIOR SURFACES
SSPC NO.10 BLAST ALL INTERIOR OF WATER CHAMBER ONLY

COATING:	MATERIAL	THICKNESS
EXTERIOR-	HIGHGUARD	(75 MILS)
INTERIOR-	POLYURETHANE	(15 MILS)
	INTERIOR OF WATER CHAMBER	

CONSTRUCTION :
LAP FIT & WELD ALL EXTERIOR SEAMS
OPERATING PRESSURE : ATMOSPHERIC



TURNBUCKLE
DETAIL
SCALE: NONE

CONCRETE ANCHOR PAD DETAIL

SCALE: NONE

HOLDDOWN STRAP AND TURNBUCKLE SCHEDULE

TANK DIAMETER	STRAP	TURNBUCKLE	HOLE SIZE	"A" DIMENSION
48"	3" X 1/4"	3/4"	7/8"	27"
64"	3" X 1/4"	3/4"	7/8"	35"
72"	3" X 3/8"	1"	1-1/8"	39"
96"	3" X 3/8"	1-1/8"	1-1/4"	51"
120"	4" X 1/2"	1-1/2"	1-5/8"	63"

NOTE: NUMBER OF TANK STRAPS IS AS PER TANK MANUFACTURER RECOMMENDATIONS.

NOTES:

1. TANK DRAWING IS A SCHEMATIC DIAGRAM ONLY, AND CAN BE FIBERGLASS OR STEEL AS DIRECTED.
2. 45" SUMPS FOR JACKETED SECONDARY CONTAINMENT TANK AND 42" SUMPS FOR FIBERGLASS TANKS.
3. PROVIDE ADDITIONAL #5 BAR TO FRAME AROUND SLAB PENETRATIONS. EXTEND BAR 2'-0" PAST PENETRATIONS.
4. FOR EXCAVATIONS SUBJECT TO GROUNDWATER INFILTRATION THE CONTRACTOR SHALL INSTALL FILTER FABRIC ON EXCAVATION BOTTOM AND ALL SIDEWALLS UP TO A MINIMUM OF TWO FEET BELOW GRADE SURFACE.
5. PROVIDE ADDITIONAL #5 BAR MINIMUM 3 FEET LONG ON EACH SIDE OF ANCHOR PLATE.

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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CODE OF NEW YORK STATE:

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CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

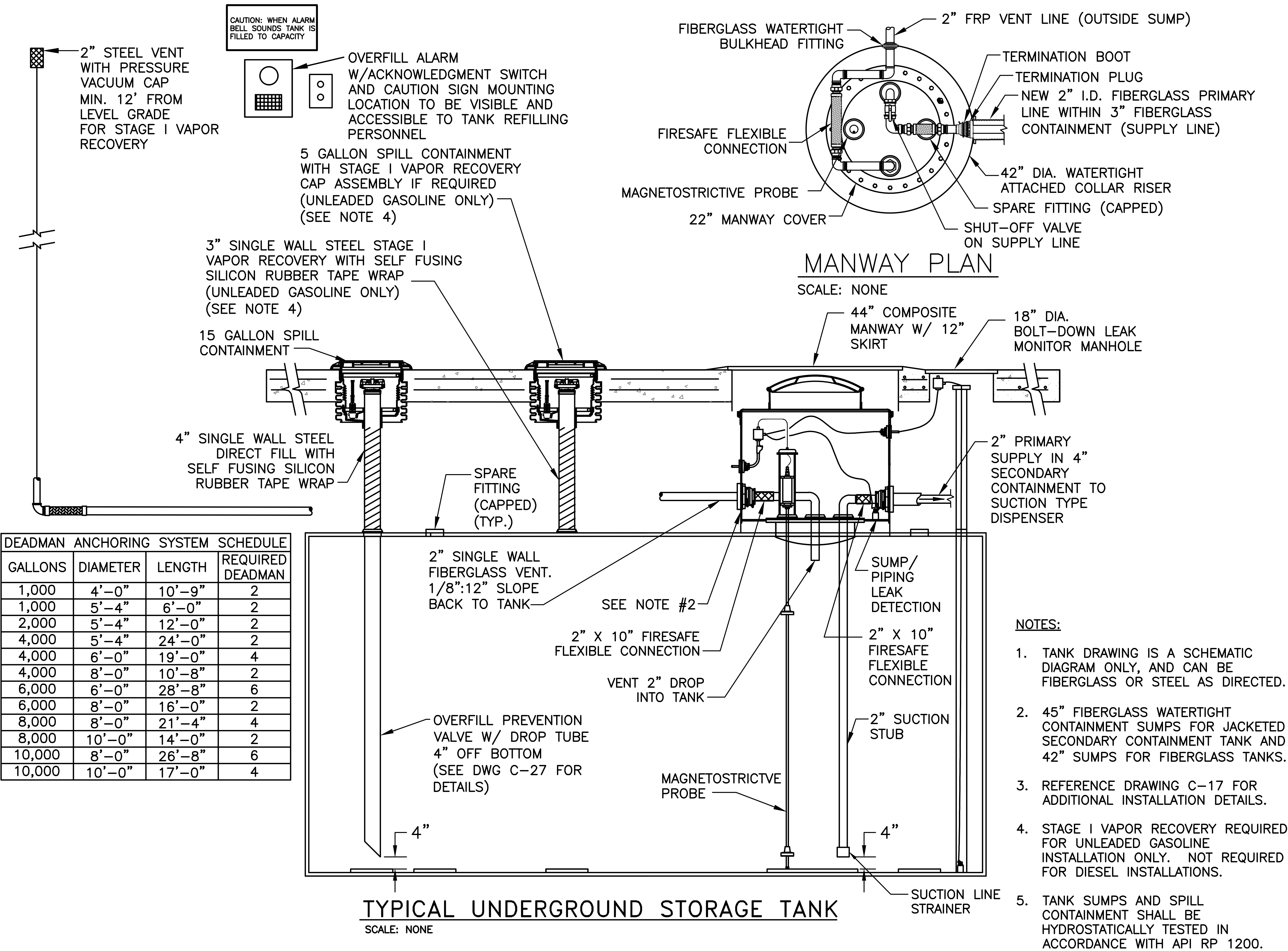
SHEET TITLE:

TYPICAL UNDERGROUND
STORAGE TANK
CONCRETE ANCHOR PAD

DRAWING NUMBER:

C-17

SHEET 19 OF 51



DEADMAN ANCHORING SYSTEM SCHEDULE			
GALLONS	DIAMETER	LENGTH	REQUIRED DEADMAN
1,000	4'-0"	10'-9"	2
1,000	5'-4"	6'-0"	2
2,000	5'-4"	12'-0"	2
4,000	5'-4"	24'-0"	2
4,000	6'-0"	19'-0"	4
4,000	8'-0"	10'-8"	2
6,000	6'-0"	28'-8"	6
6,000	8'-0"	16'-0"	2
8,000	8'-0"	21'-4"	4
8,000	10'-0"	14'-0"	2
10,000	8'-0"	26'-8"	6
10,000	10'-0"	17'-0"	4

NEW YORK

STATE OF

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General Services

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CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

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STATE OF NEW YORK

MAKING A WRITING

NO OTHER

LIBRARY

PROFESSIONAL NUMBER

12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

TYPICAL UNDERGROUND FUEL
STORAGE TANK UNLEADED
GASOLINE OR DIESEL MOTOR
FUEL INSTALLATION PACKAGE

DRAWING NUMBER:


C-18

SHEET

20

OF


51



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CONTRACT:

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

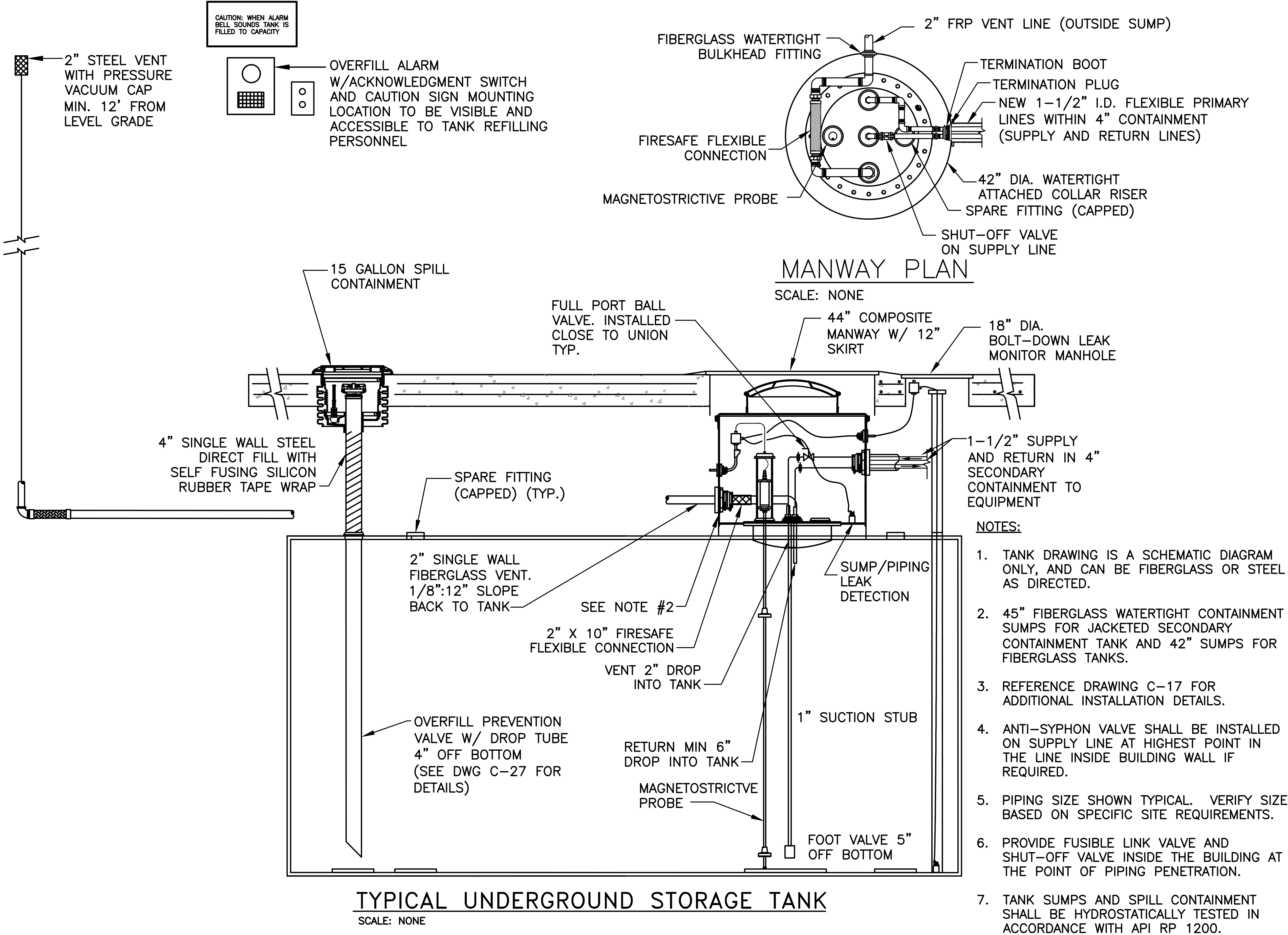
APPROVED: M. WESOLOWSKI

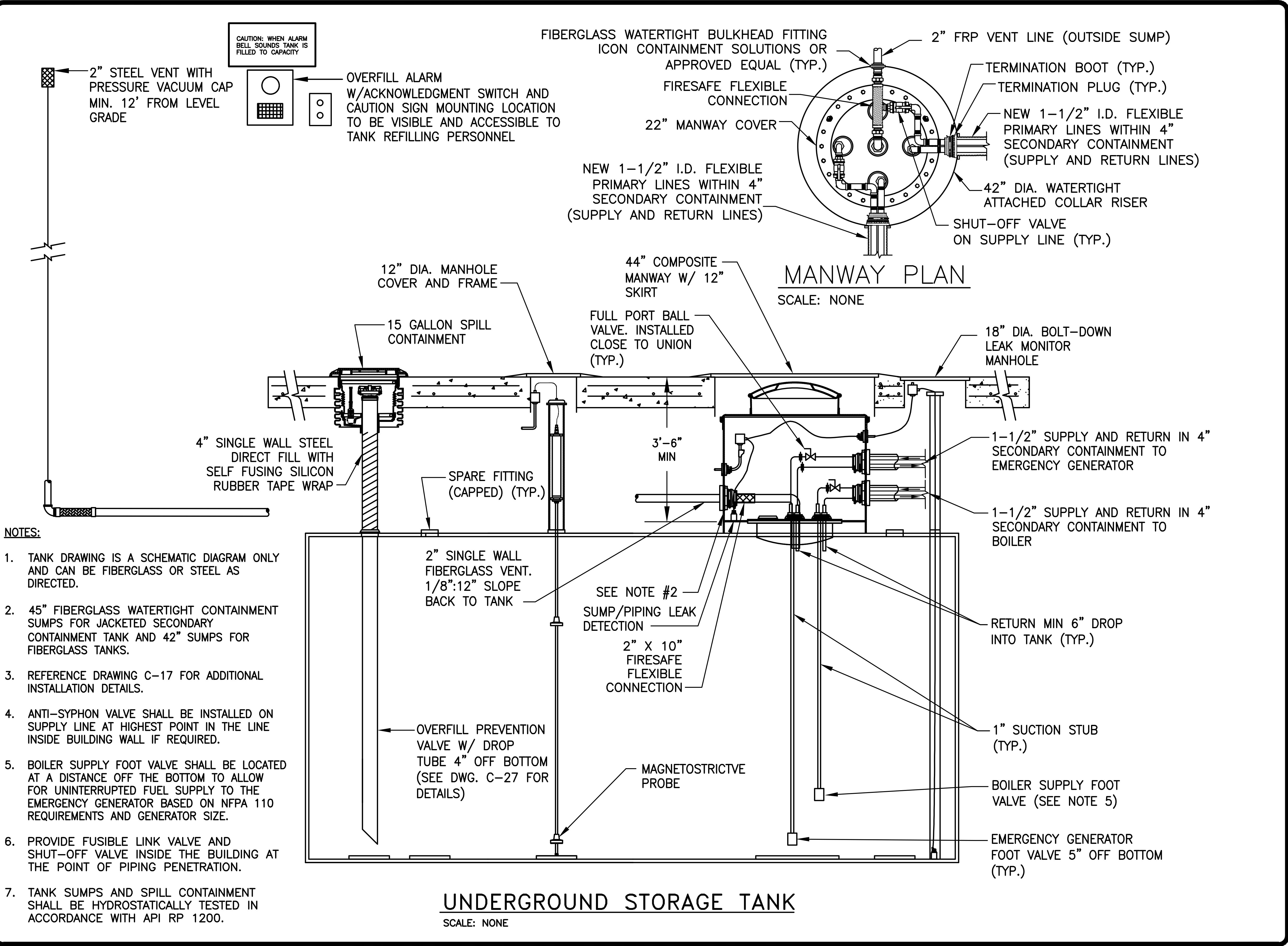
SHEET TITLE:

TYPICAL UNDERGROUND STORAGE TANK FUEL OIL OR GENERATOR INSTALLATION PACKAGE

DRAWING NUMBER: C-19

SHEET 21 OF 51





NEW YORK STATE
Office of General Services
DESIGN & CONSTRUCTION

CONSULTANT
CERTIFICATE OF AUTHORIZATION #: 0017905
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STATE OF NEW YORK
LIBERTY & JUSTICE UNDER LAW
PROFESSIONAL NUMBER
12/31/2025

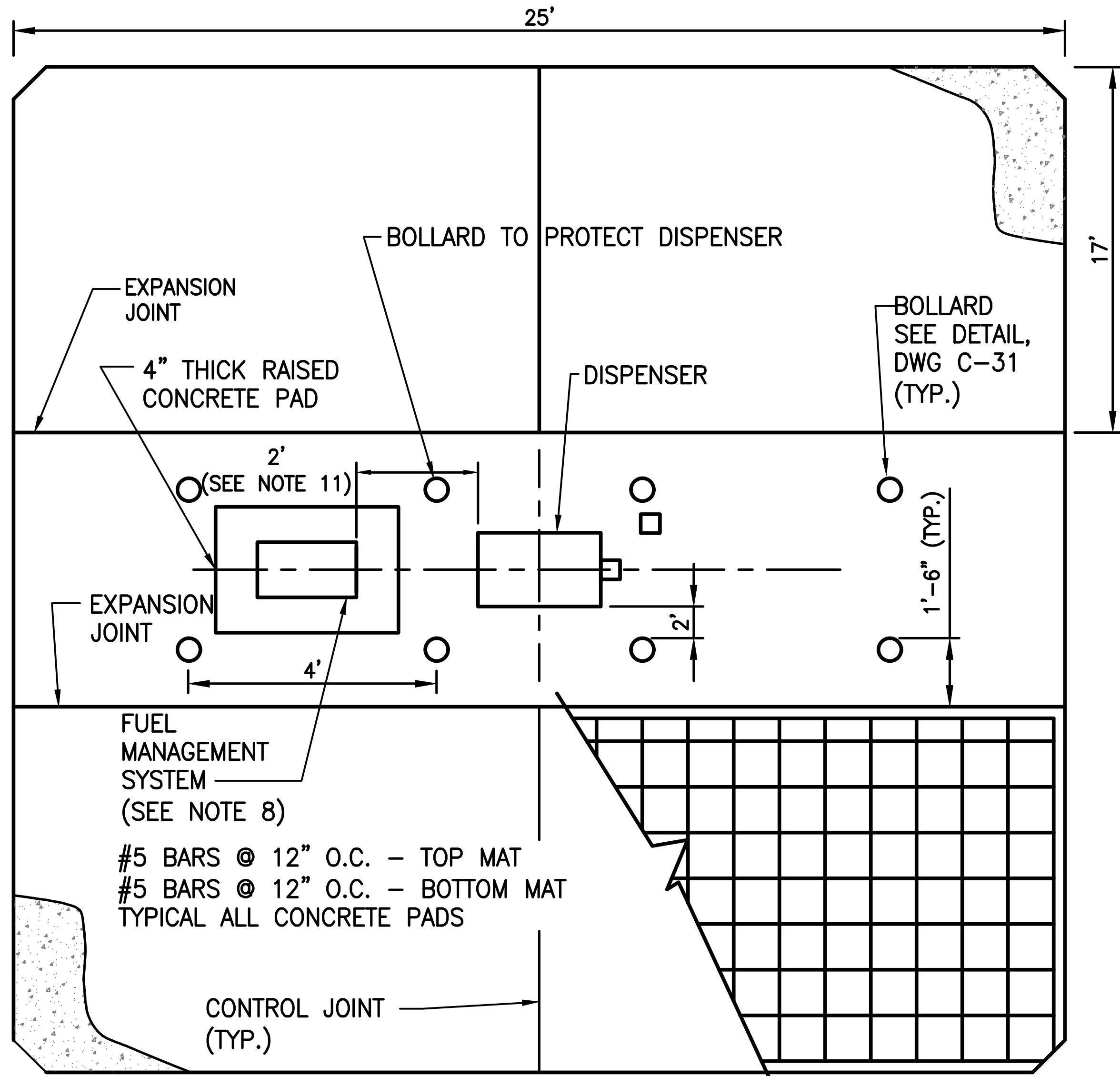
CONSTRUCTION
TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM
LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:
TYPICAL UNDERGROUND STORAGE TANK BOILER AND DUAL FEED FUEL OIL - EMERGENCY GENERATOR

DRAWING NUMBER:
C-20

SHEET 22 OF 51

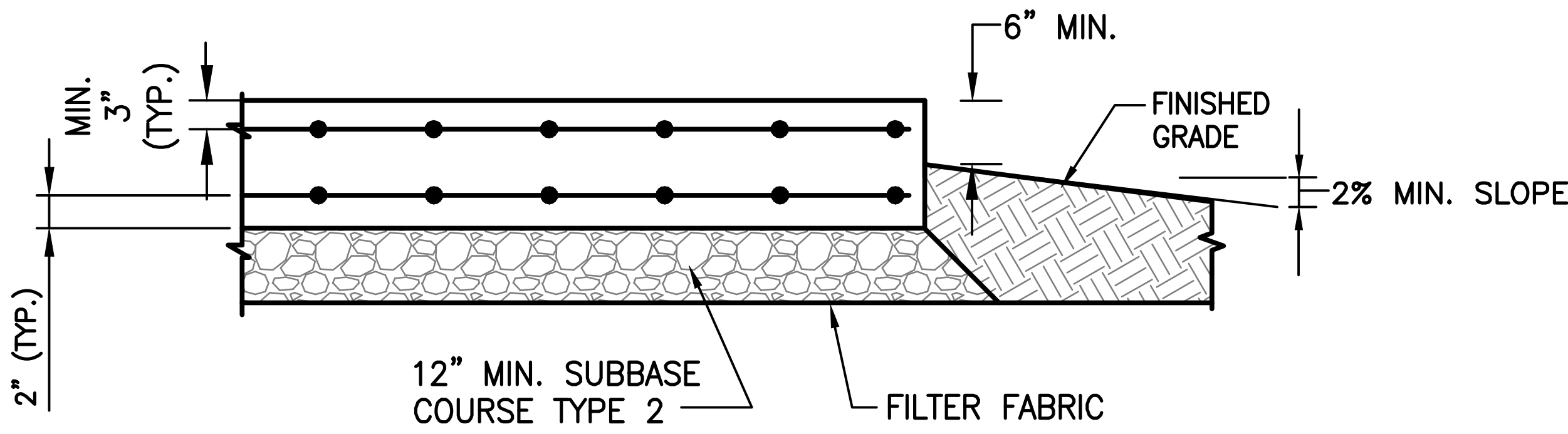


TYPICAL SINGLE HOSE DISPENSER ISLAND PLAN

SCALE: NONE

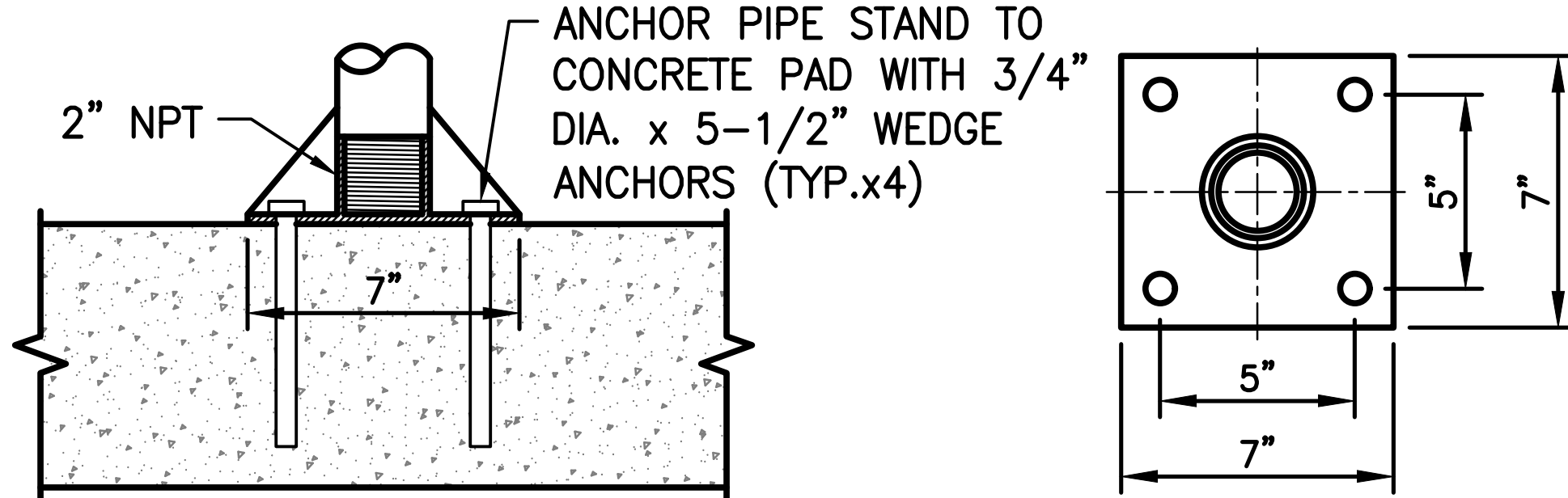
NOTES:

1. FOR FLEXIBLE DOUBLE-WALL PIPE USE 1-1/2" SUPPLY WITH 4" SECONDARY CARRIER PIPE.
2. CHECK FOR UTILITY INTERFERENCE AND LOCATE BOLLARDS ACCORDINGLY.
3. MIN. 6" REVEAL AT DISPENSER LOCATION.
4. DRIVE-ON PAD TO BE MINIMUM 12" THICK.
5. PROVIDE A 1/2" CHAMFER AT ALL EXPOSED CORNERS AND EDGES OF CONCRETE SLABS.
6. INSTALL EMERGENCY FUEL PUMP SHUT-OFF SWITCH BETWEEN 20 AND 100 FEET FROM FUEL DISPENSER.
7. PROVIDE A 20-POUND ABC-RATED (MINIMUM 40-B:C) FIRE EXTINGUISHER NOT MORE THAN 75 FEET FROM STORAGE TANK.
8. FOR ASSET WORKS FUEL MANAGEMENT SYSTEMS, STUB UP ALL REQUIRED CONDUIT IN AN 11" X 11" AREA (SEE DWG. C-41).
9. GASOLINE DISPENSER HOSE SHALL BE 15' IN LENGTH (ONE 5' HOSE AND 10' HOSE WITH A DISCONNECT IN BETWEEN).
10. DIESEL DISPENSER HOSE SHALL BE 18' IN LENGTH (TWO 9' HOSES).
11. DISPENSER SHALL BE 2' FROM THE FUEL MANAGEMENT SYSTEM OR THE FUEL MANAGEMENT SYSTEM ENCLOSURE.



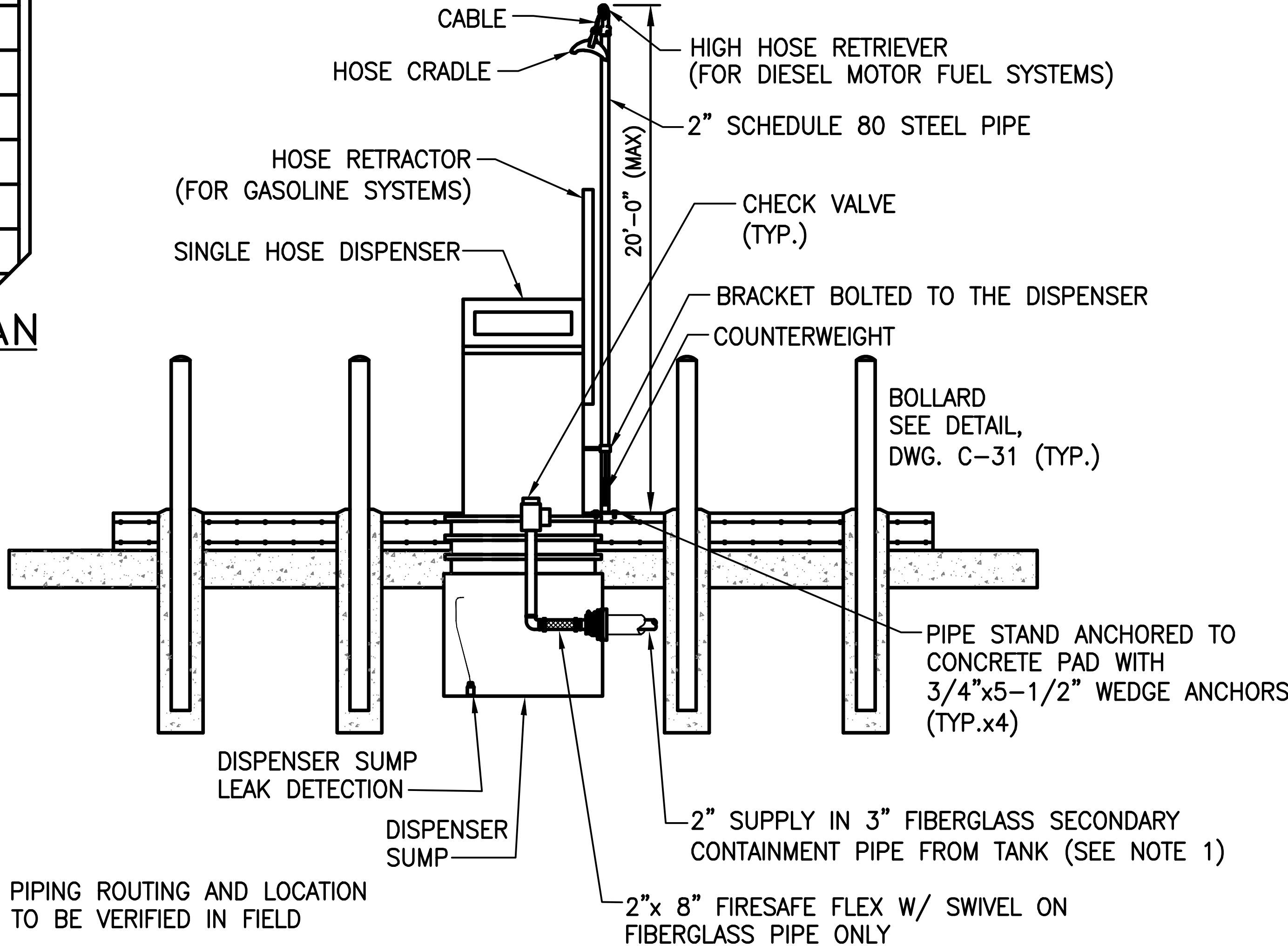
DISPENSER FOUNDATION DETAIL

SCALE: NONE



PIPE STAND DETAIL

SCALE: NONE



TYPICAL SINGLE HOSE ISLAND ELEVATION

SCALE: NONE

Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

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CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

SHEET TITLE: SINGLE HOSE DISPENSER ISLAND AND CONCRETE PAD DETAIL

DRAWING NUMBER: C-21

SHEET 23 **OF** 51



NOTES:

-
- 2" NPT
- ANCHOR PIPE STAND TO CONCRETE PAD WITH 3/4" DIA. x 5-1/2" WEDGE ANCHORS (TYP.x4)
- 7"
- 7"
- 5"
- 5"
- 7"

PIPE STAND DETAIL

CABLE (TYP.)
 HOSE CRADLE (TYP.)
 HOSE RETRACTOR (FOR GASOLINE SYSTEMS) (TYP.)
 DUAL HOSE DISPENSER
 HIGH HOSE RETRIEVER (TYP.) (FOR DIESEL MOTOR FUEL SYSTEMS)
 2" SCHEDULE 80 STEEL PIPE (TYP.)
 20'-0" (MAX)
 CHECK VALVE (TYP.)
 BRACKET BOLTED TO THE DISPENSER (TYP.)
 COUNTERWEIGHT (TYP.)
 BOLLARD SEE DETAIL, DWG. C-31 (TYP.)
 PIPE STAND ANCHORED TO CONCRETE PAD WITH 3/4"x5-1/2" WEDGE ANCHORS (TYP.x4)
 DISPENSER SUMP LEAK DETECTION
 DISPENSER SUMP
 2" SUPPLY IN 3" FIBERGLASS SECONDARY CONTAINMENT PIPE FROM TANK (SEE NOTE 1)
 2"x 8" FIRESAFE FLEX W/ SWIVEL ON FIBERGLASS PIPE ONLY

R.
 75
 "

TH

PIPING ROUTING AND LOCATION TO BE VERIFIED IN FIELD

TYPICAL DUAL HOSE ISLAND ELEVATION

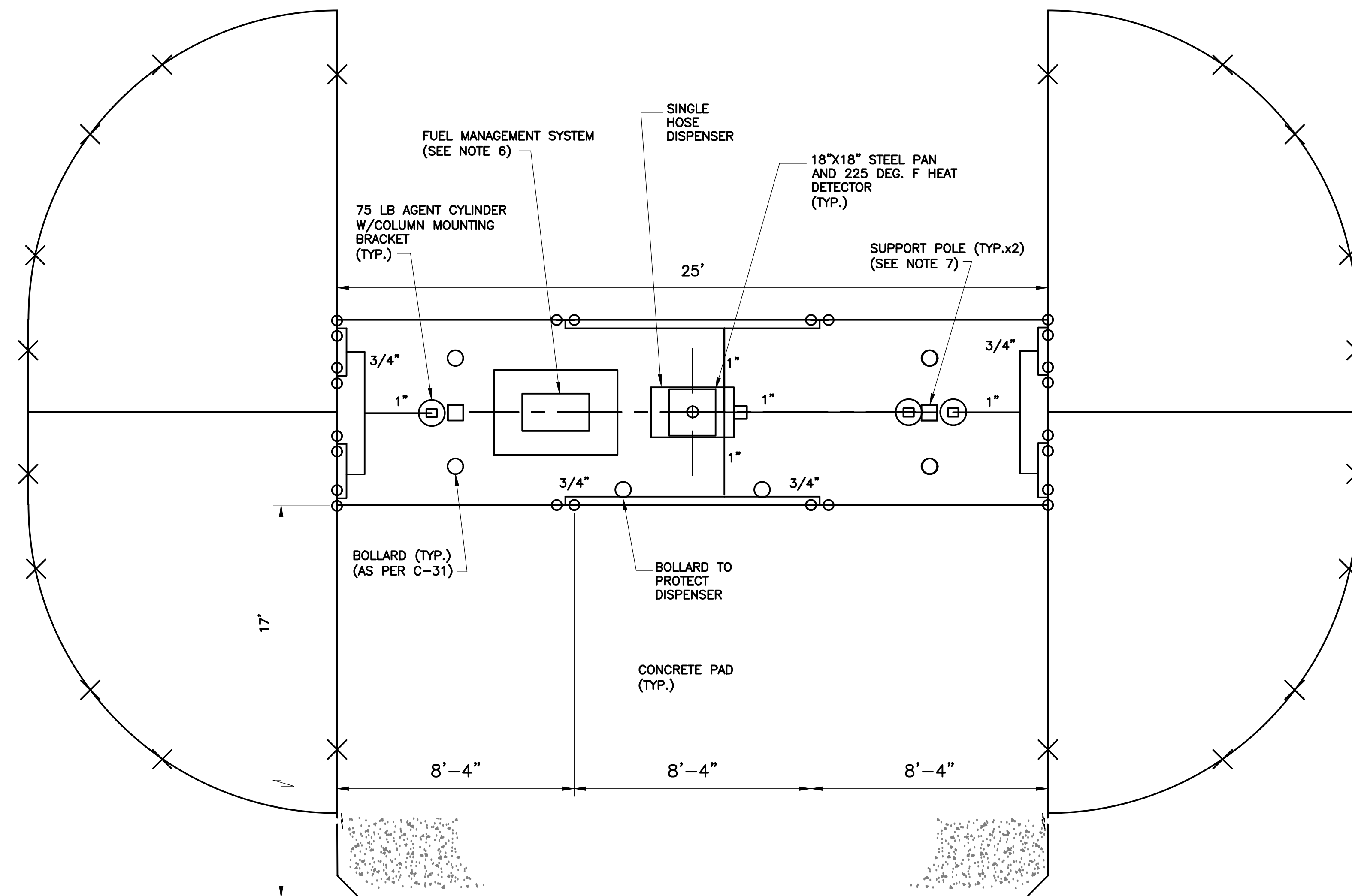
SCALE: NONE

	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M.	GUTMANN
DRAWN BY:	A.	KELLY
FIELD CHECK:	M.	WESOLOWSKI
APPROVED:	M.	WESOLOWSKI

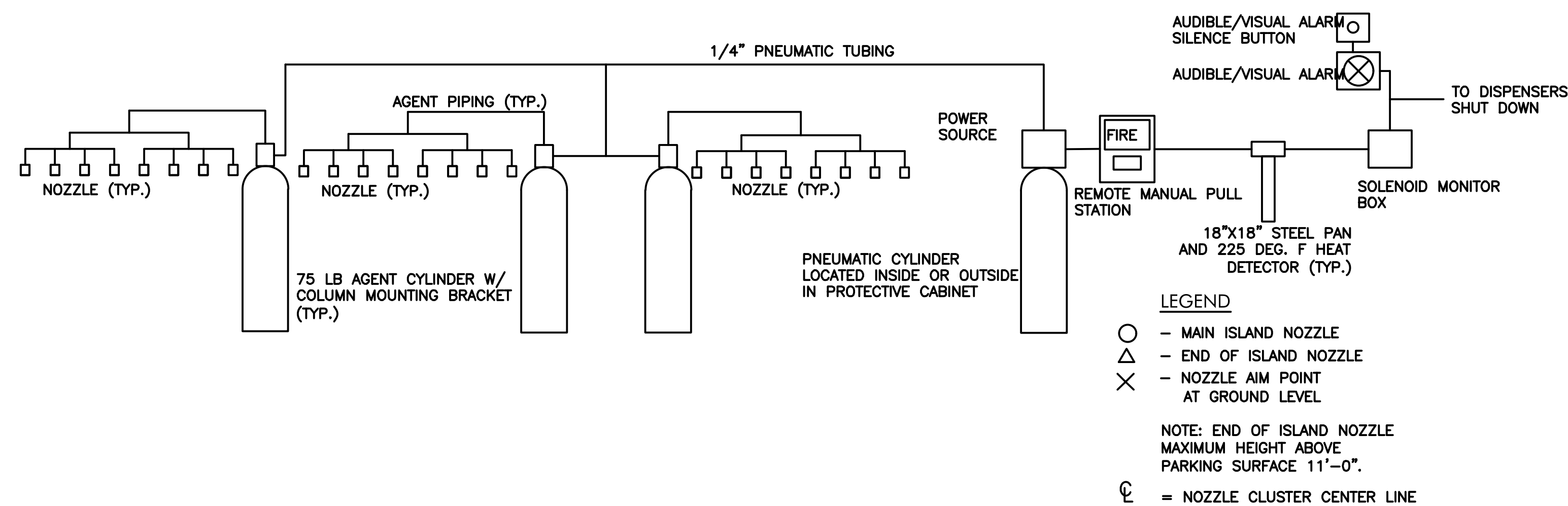
SHEET TITLE:

**DUAL HOSE
DISPENSER ISLAND
AND CONCRETE
PAD DETAIL**

DRAWING NUMBER: C-22



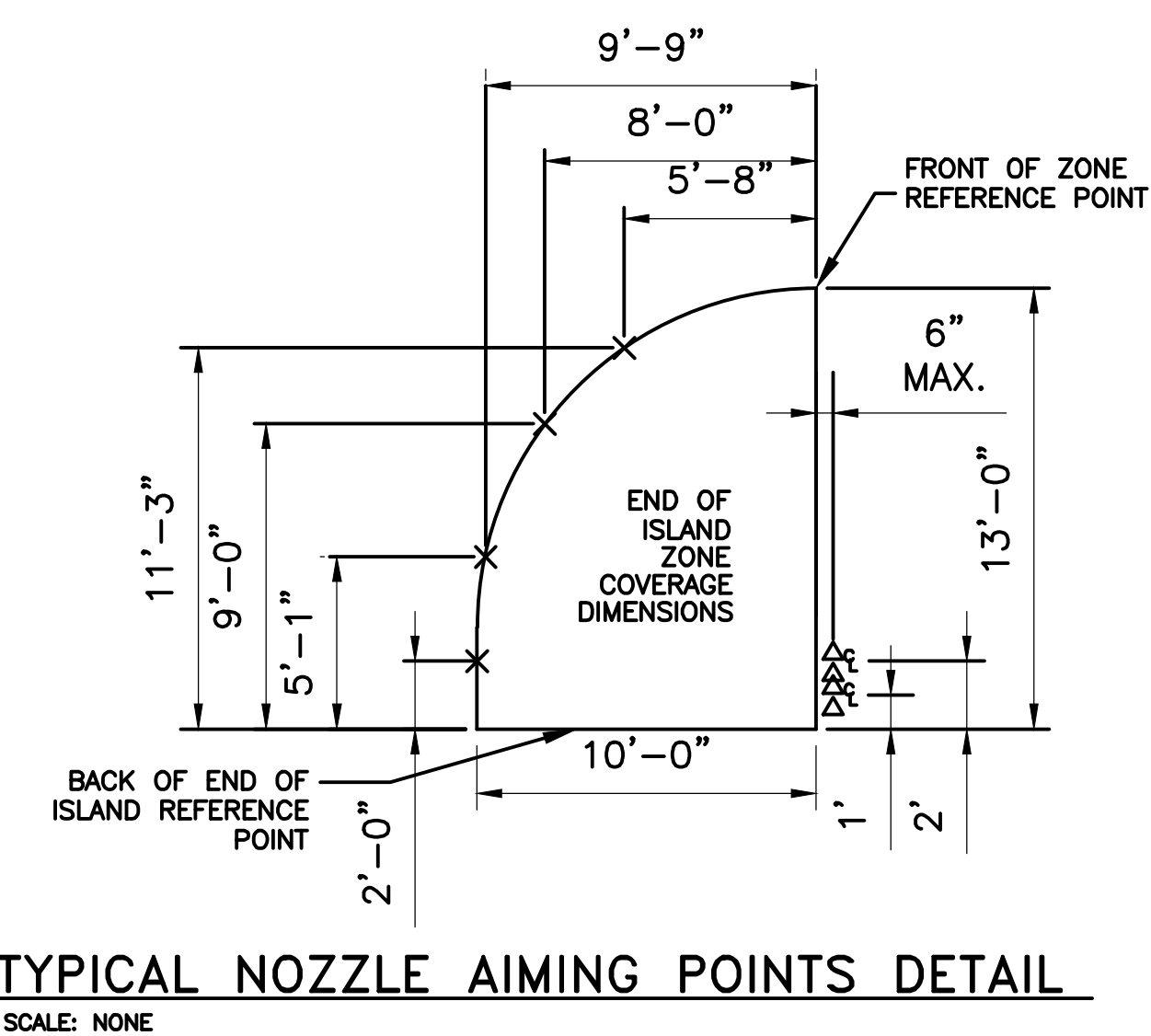
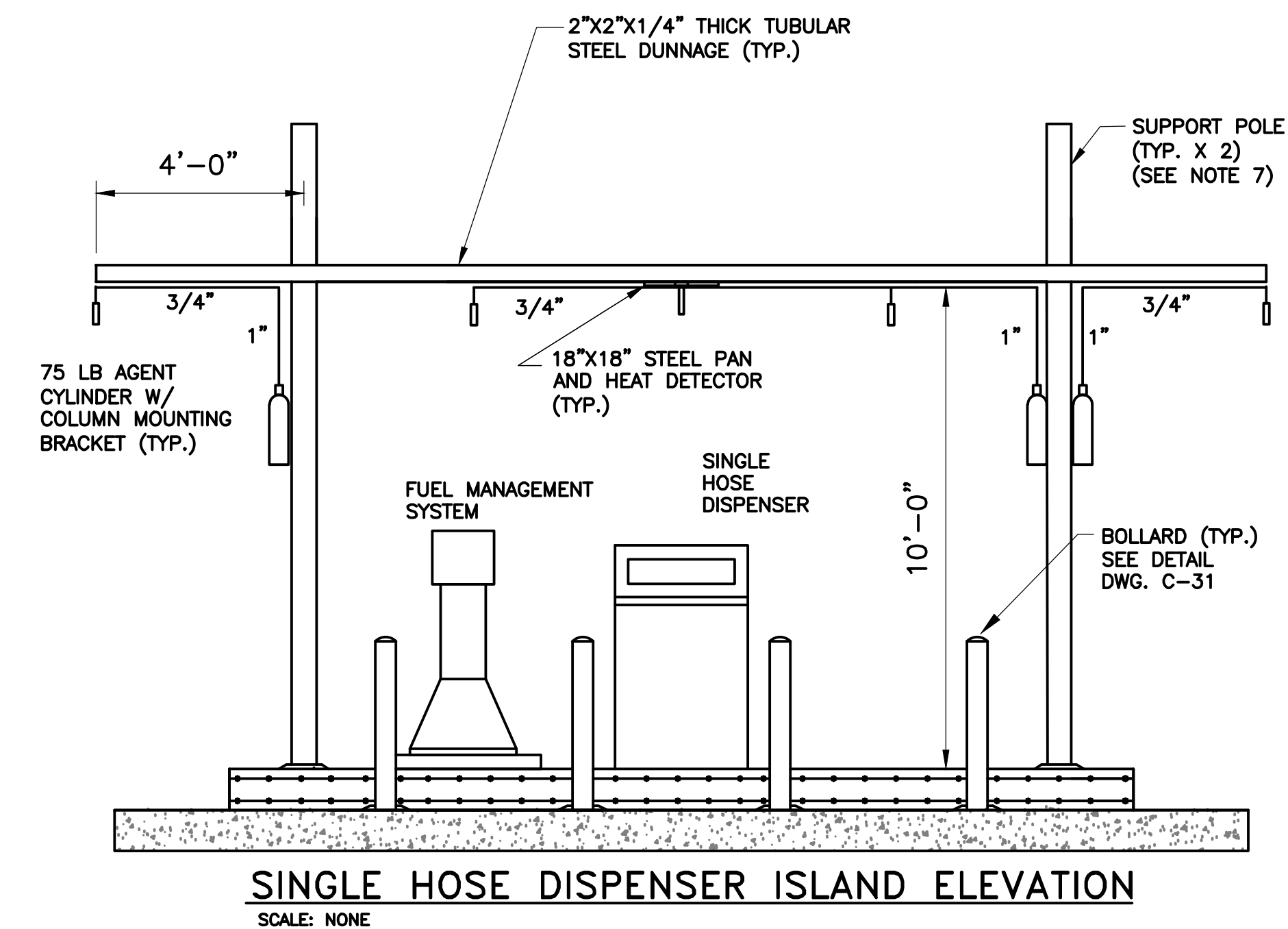
SINGLE HOSE DISPENSER ISLAND PLAN



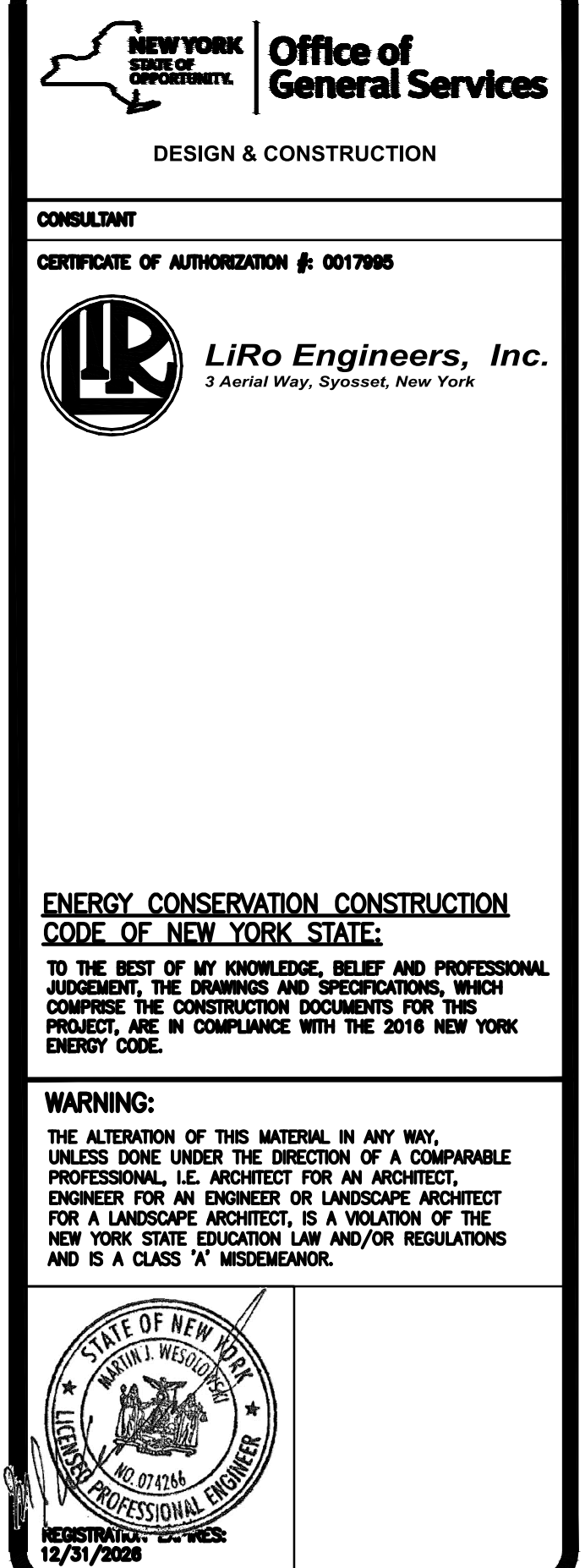
FIRE SUPPRESSION SCHEMATIC DIAGRAM

- NOTES:

1. NUMBER OF NOZZLES AND PIPE SIZES ARE DIAGRAM ONLY. ACTUAL PIPE SIZE AND ROUTING TO BE VENDER CERTIFIED AND DESIGNED FOR HAZARD AREA.
2. SYSTEM TO BE UL1254 AND AS PER NFPA-17.
3. DUNNAGE LAYOUT TO BE SUBMITTED FOR DIRECTOR APPROVAL.
4. INSTALL EMERGENCY FUEL PUMP SHUT-OFF SWITCH BETWEEN 20 AND 100 FEET FROM FUEL DISPENSER.
5. FIRE SUPPRESSION SYSTEM MAY BE TIED INTO THE FACILITY'S CENTRAL ALARM SYSTEM. TIE-IN LOCATION AND ARRANGEMENT SHALL BE DETERMINED ON A SITE BY SITE BASIS. CONTRACTOR TO PROVIDE WIRE AND CONDUIT TO ALARM PANEL. FACILITY TO PROVIDE FINAL CONNECTION TO CENTRAL PANEL.
6. FOR ASSET WORKS FUEL MANAGEMENT SYSTEMS, STUB UP ALL REQUIRED CONDUIT IN AN 11" X 11" AREA.
7. FIRE SUPPRESSION SYSTEM SUPPORT POLES ARE PROHIBITED FROM BEING USED AS LIGHTING SUPPORT POLES. PROVIDE LIGHT POLES SEPARATELY.



TYPICAL NOZZLE AIMING POINTS DETAIL



CONTRACT:	CONSTRUCTION
TITLE:	FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

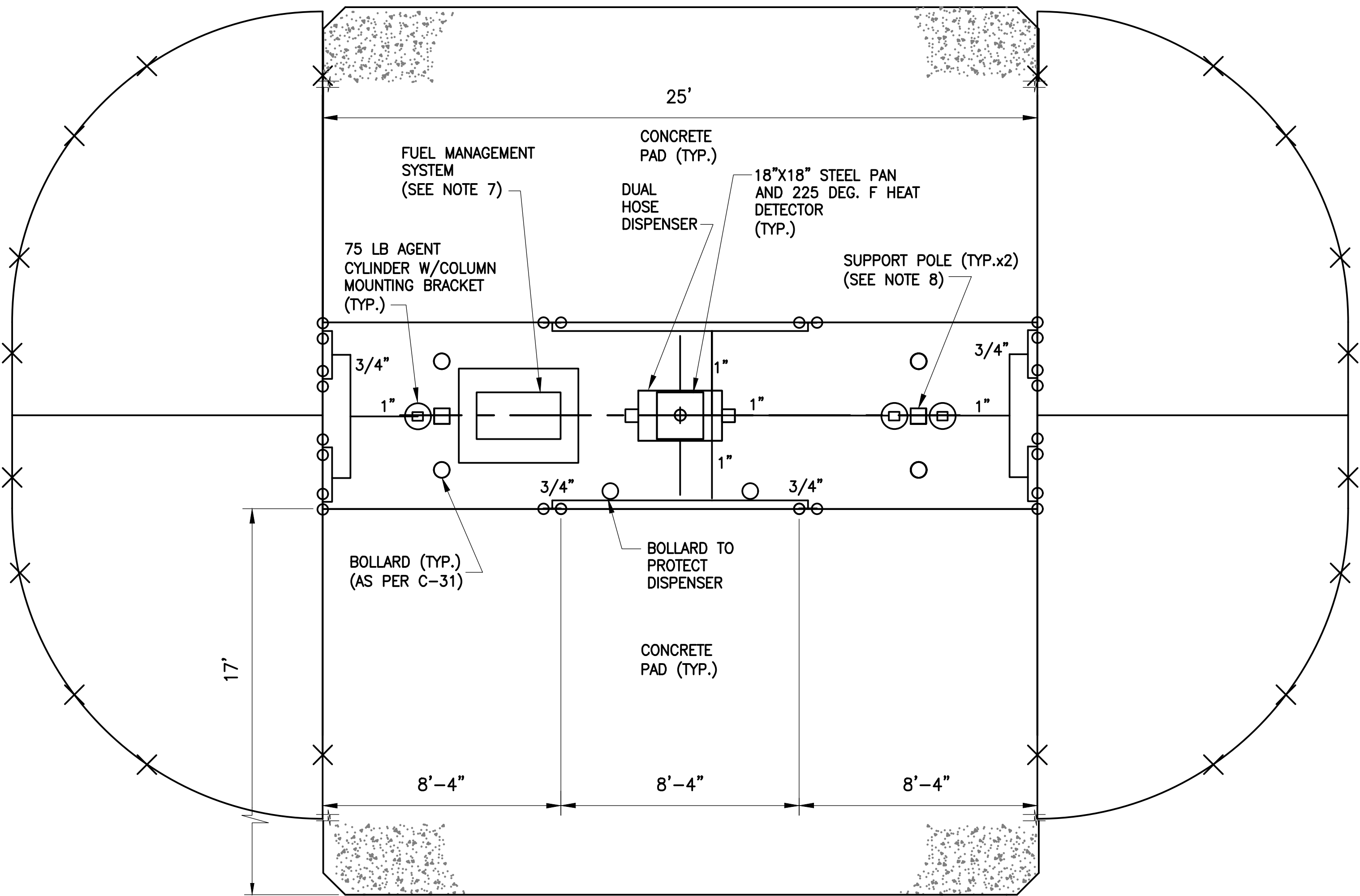
LOCATION: NORTHERN REGION
VARIOUS FACILITIES

	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 — C	
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

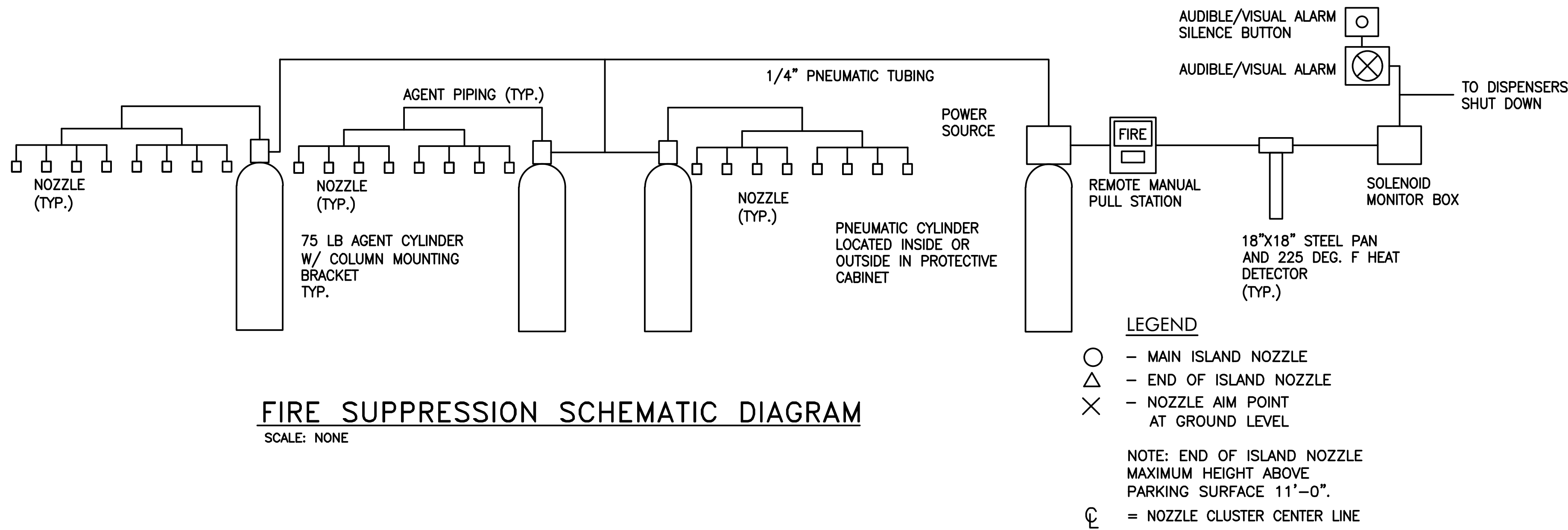
SINGLE HOSE
DISPENSER ISLAND
FIRE SUPPRESSION
DETAILS

DRAWING NUMBER: C-23



DUAL HOSE DISPENSER ISLAND PLAN

SCALE: NONE

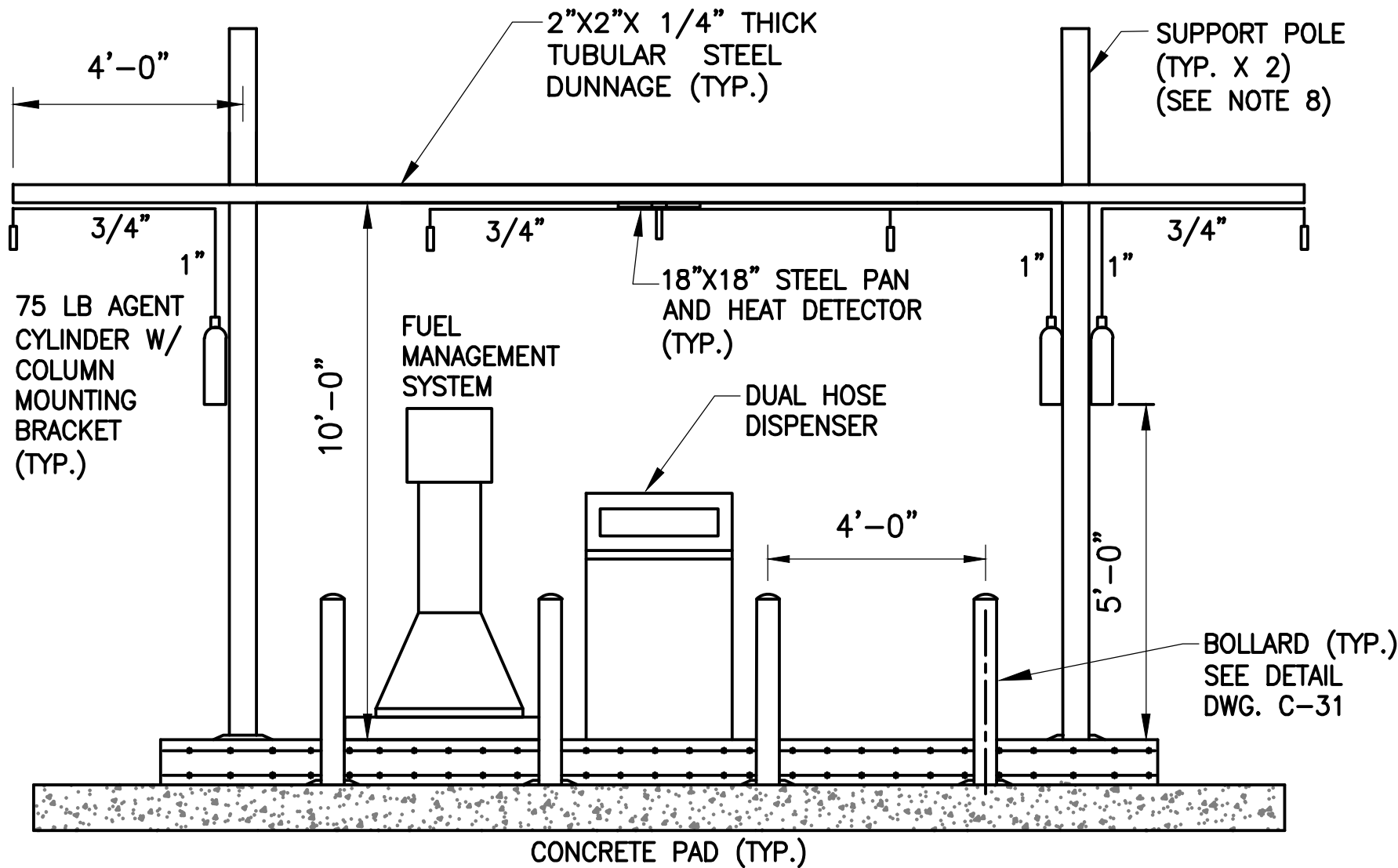


FIRE SUPPRESSION SCHEMATIC DIAGRAM

SCALE: NONE

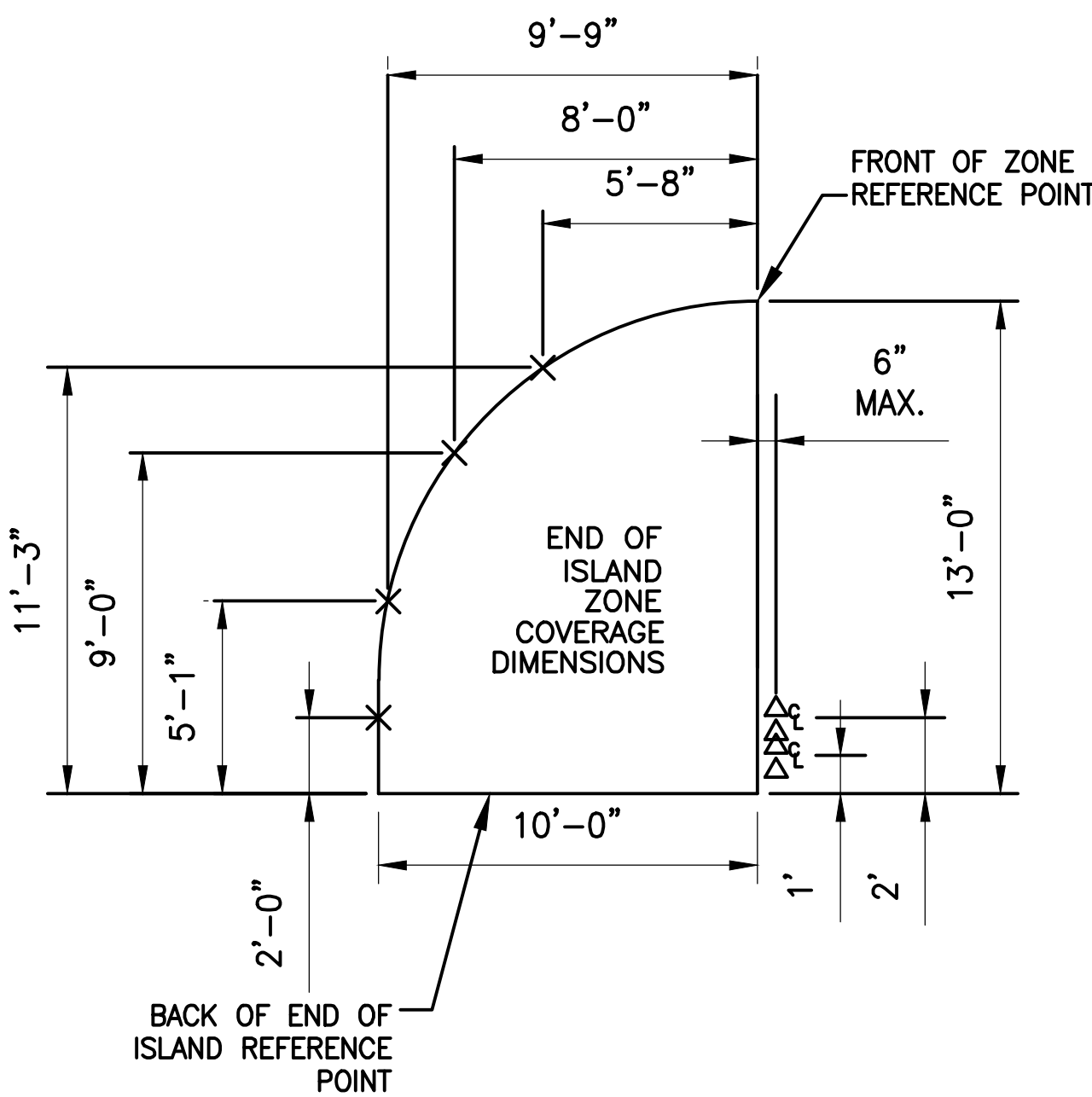
NOTES:

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2. SYSTEM TO BE UL1254 AND AS PER NFPA-17.
3. DUNNAGE LAYOUT TO BE SUBMITTED FOR DIRECTOR APPROVAL.
4. INSTALL EMERGENCY FUEL PUMP SHUT-OFF SWITCH BETWEEN 20 AND 100 FEET FROM FUEL DISPENSER.
5. FIRE SUPPRESSION SYSTEM MAY BE TIED INTO THE FACILITY'S CENTRAL ALARM SYSTEM. TIE-IN LOCATION AND ARRANGEMENT SHALL BE DETERMINED ON A SITE BY SITE BASIS. CONTRACTOR TO PROVIDE WIRE AND CONDUIT TO ALARM PANEL. FACILITY TO PROVIDE FINAL CONNECTION TO CENTRAL PANEL.
6. AVOID HOSE ARCS INTERSECTING TO MINIMIZE AREA COVERED BY FIRE SUPPRESSION SYSTEM.
7. FOR ASSET WORKS FUEL MANAGEMENT SYSTEMS, STUB UP ALL REQUIRED CONDUIT IN AN 11" X 11" AREA.
8. FIRE SUPPRESSION SYSTEM SUPPORT POLES ARE PROHIBITED FROM BEING USED AS LIGHTING SUPPORT POLES. PROVIDE LIGHT POLES SEPARATELY.



DUAL HOSE DISPENSER ISLAND ELEVATION

SCALE: NONE



TYPICAL NOZZLE AIMING POINTS DETAIL

SCALE: NONE



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CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

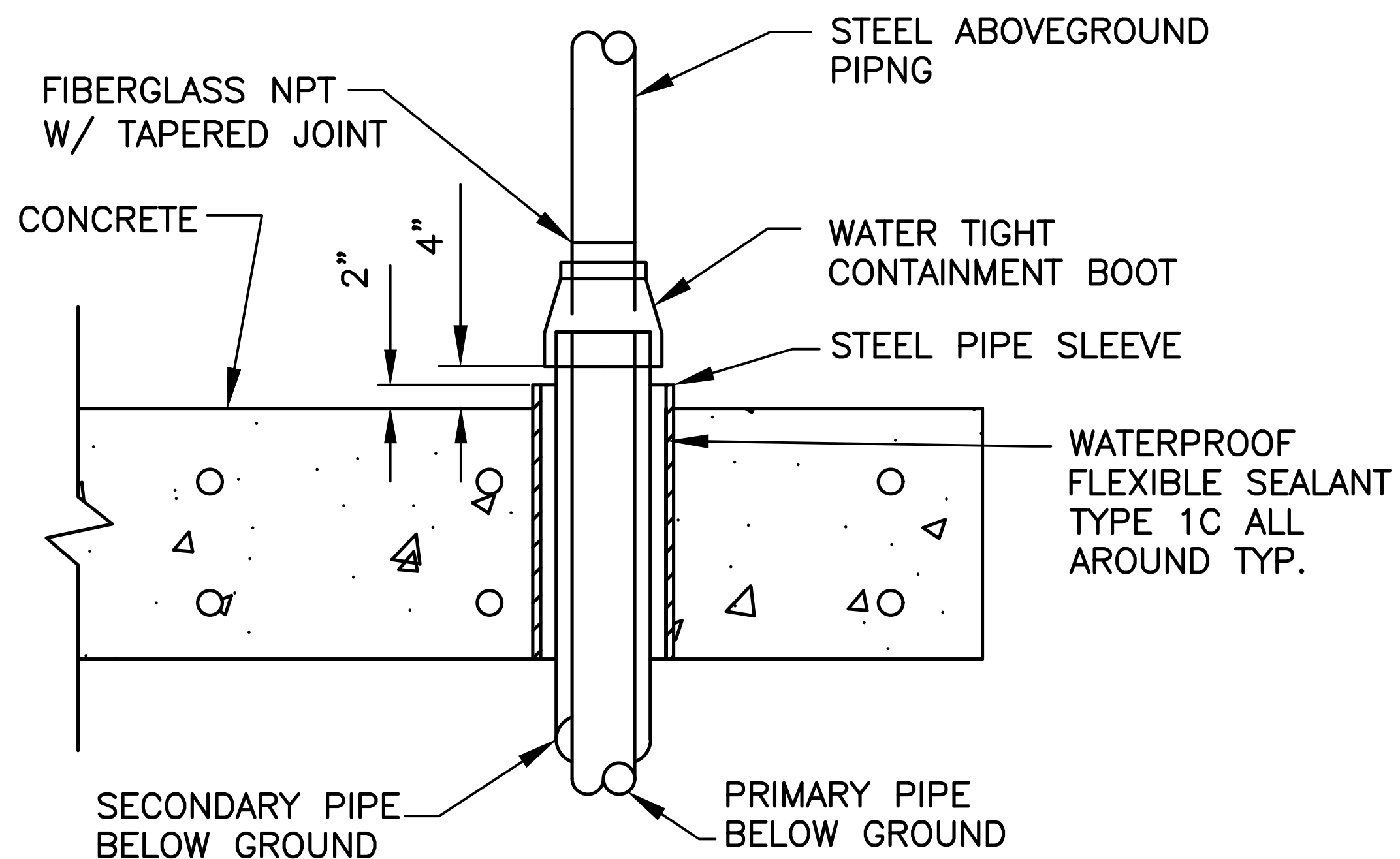
SHEET TITLE:

DUAL HOSE
DISPENSER ISLAND
FIRE SUPPRESSION
DETAILS

DRAWING NUMBER:

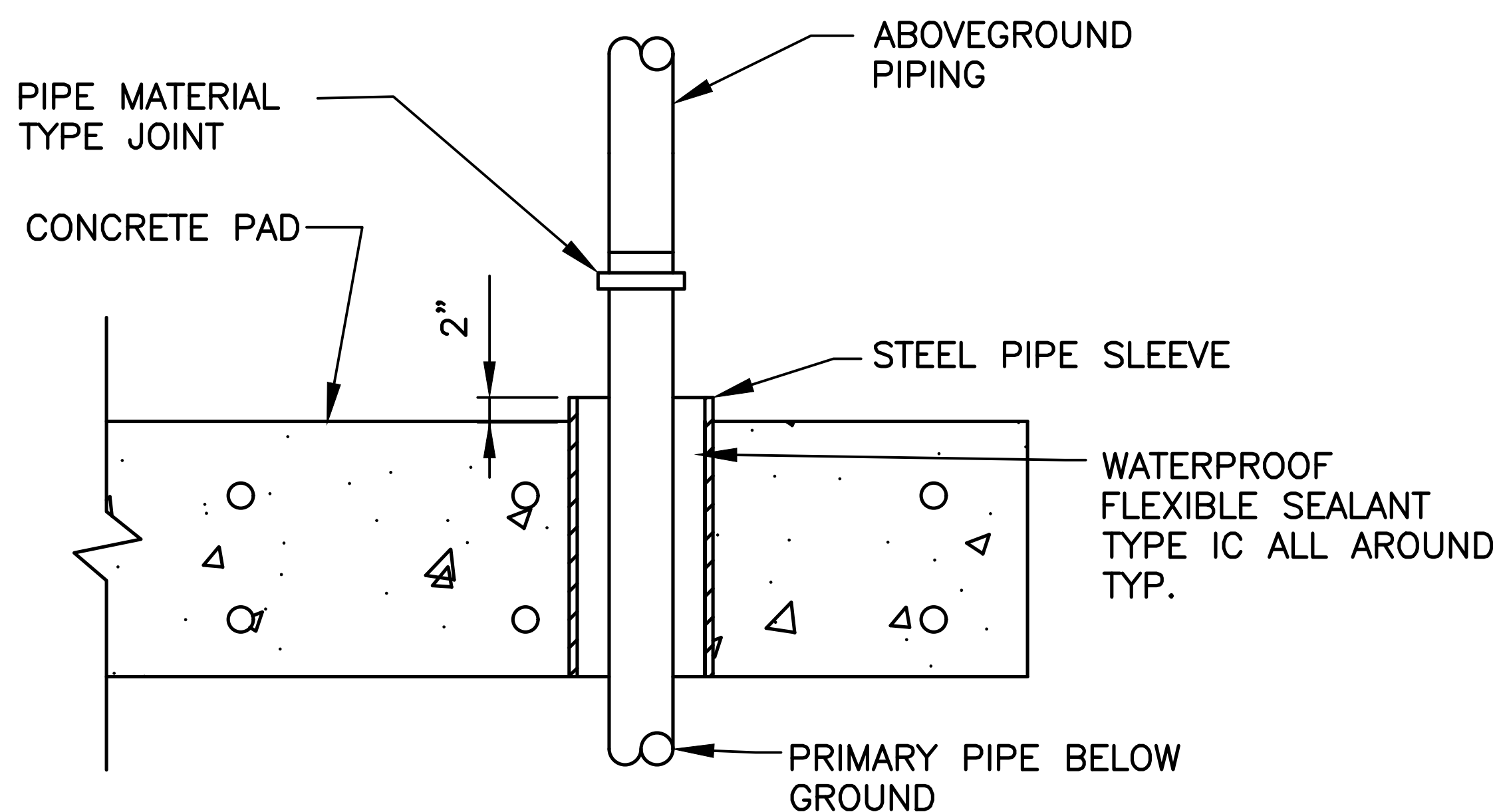
C-24





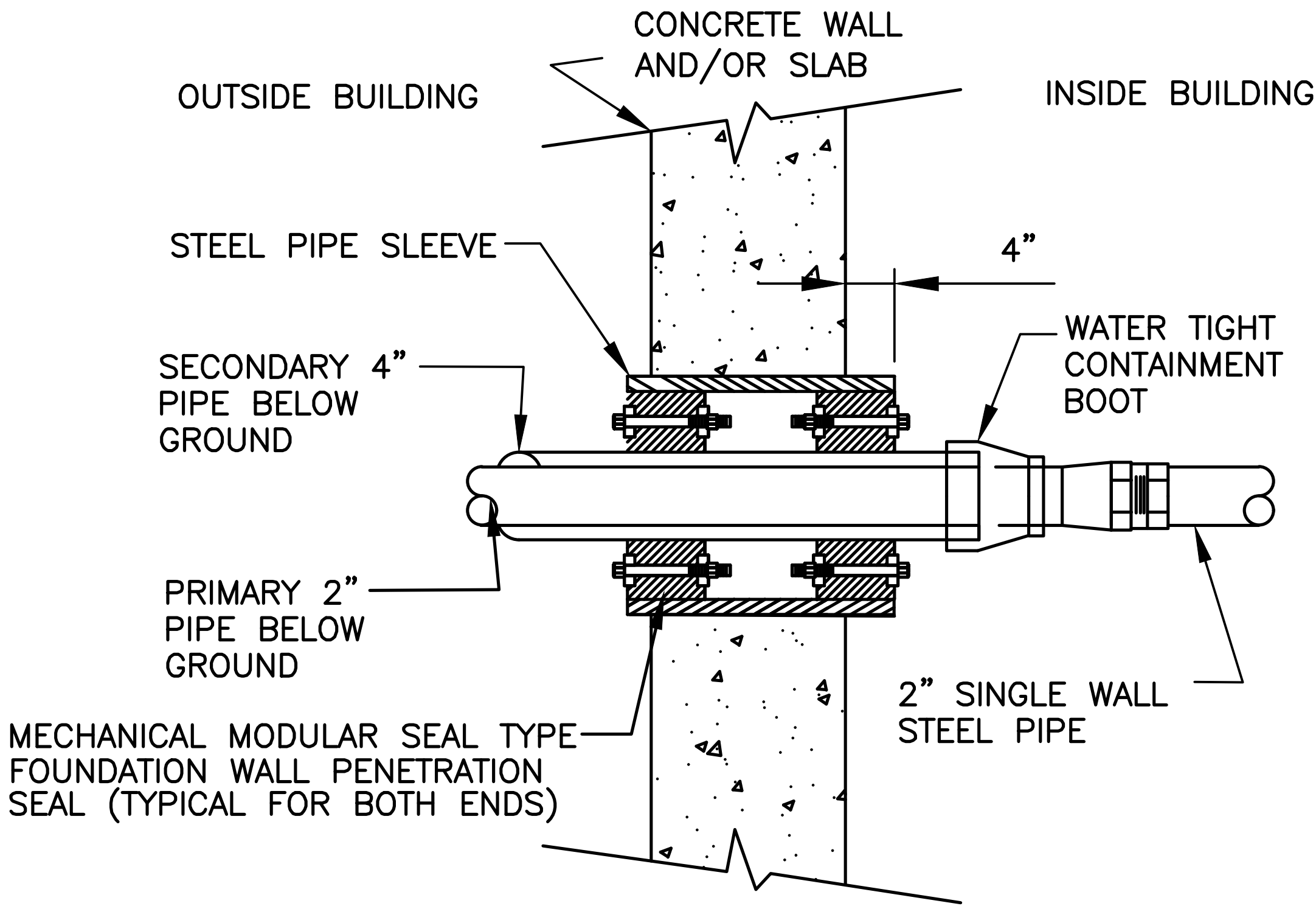
DOUBLEWALL PIPING SLAB PENETRATION DETAIL

SCALE: NONE



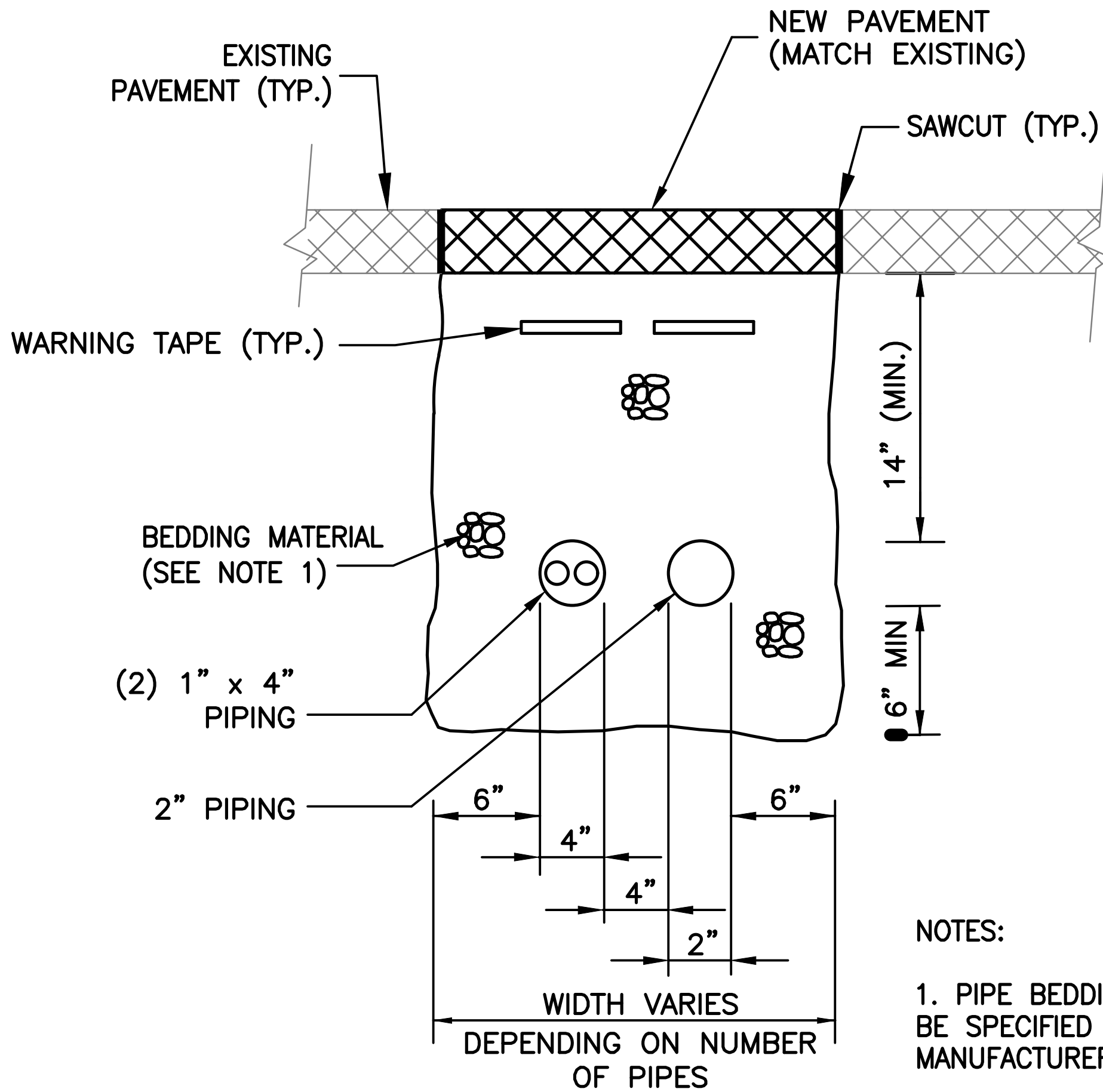
SINGLEWALL SLAB PENETRATION DETAIL

SCALE: NONE



WATER TIGHT PENETRATION DETAIL


SCALE: NONE



NOTES:
1. PIPE BEDDING MATERIAL SHALL BE SPECIFIED BASED ON PIPE MANUFACTURER REQUIREMENTS

PIPING TRENCH DETAIL

SCALE: NONE




Office of
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STATE OF NEW YORK
ARCHITECT
NO. 07034
MICHAEL J. WESOLOWSKI
PROFESSIONAL ENGINEER
RENEWAL DATE: 12/31/2026

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

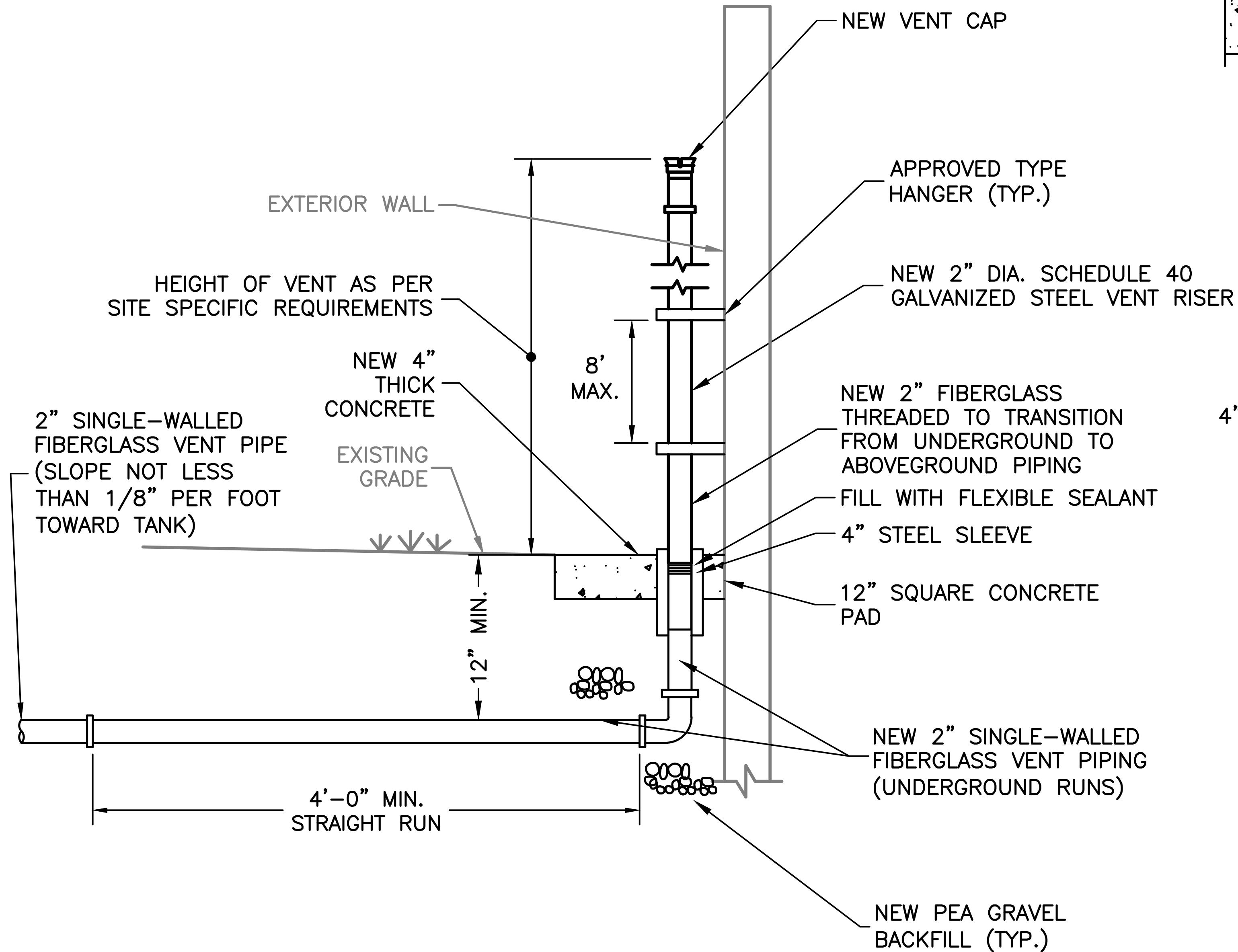
LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:
PIPING PENETRATION &
TRENCH DETAILS

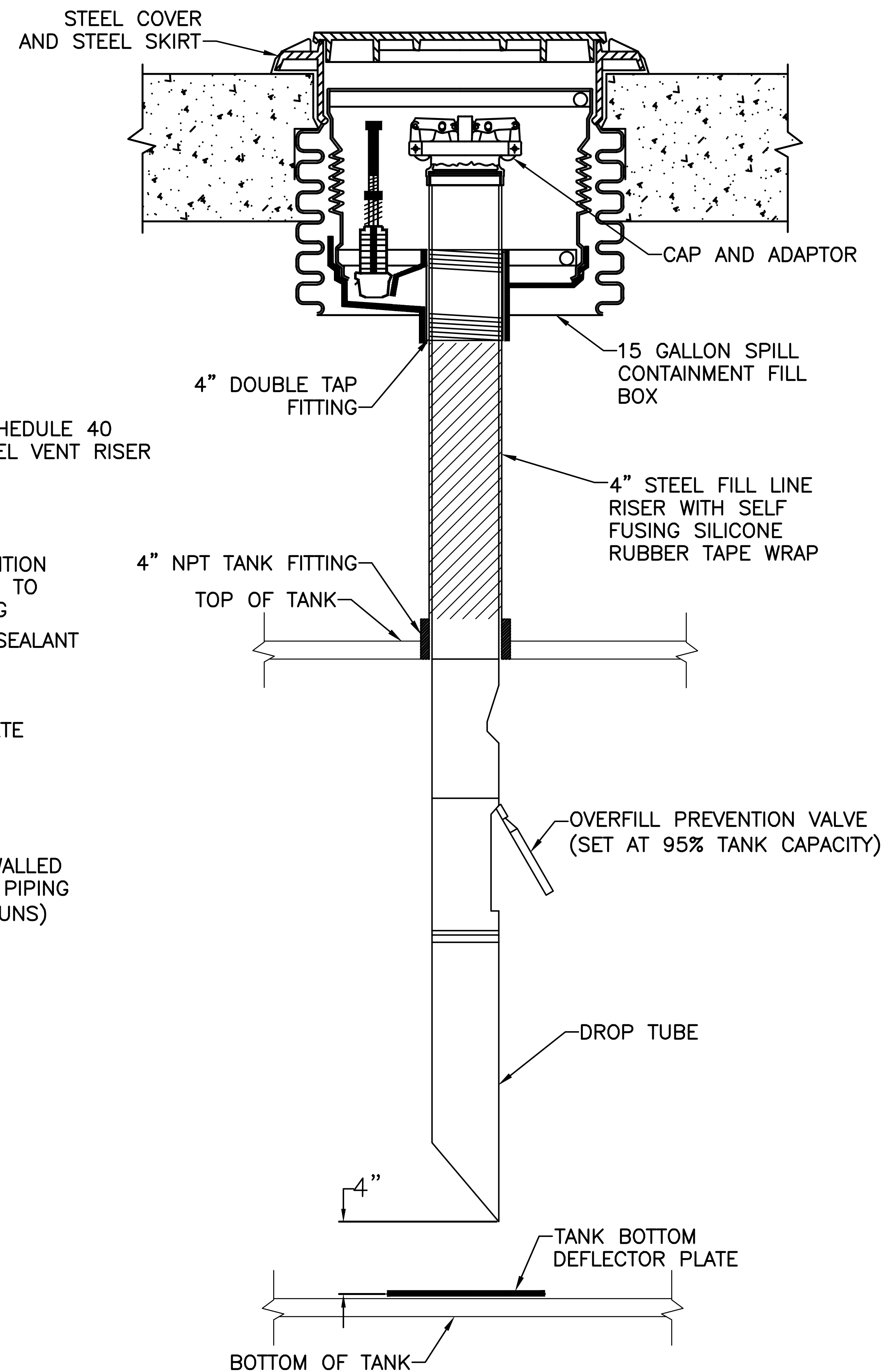
DRAWING NUMBER:
C-26

SHEET 28 OF 51

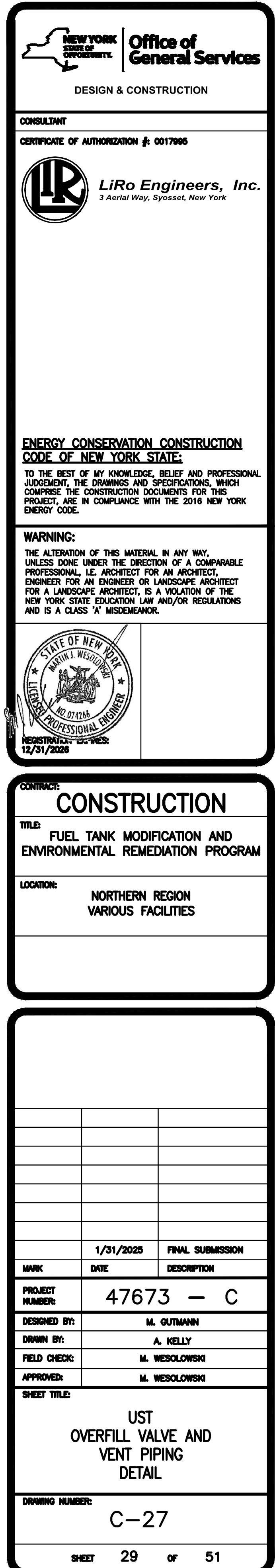


VENT PIPING

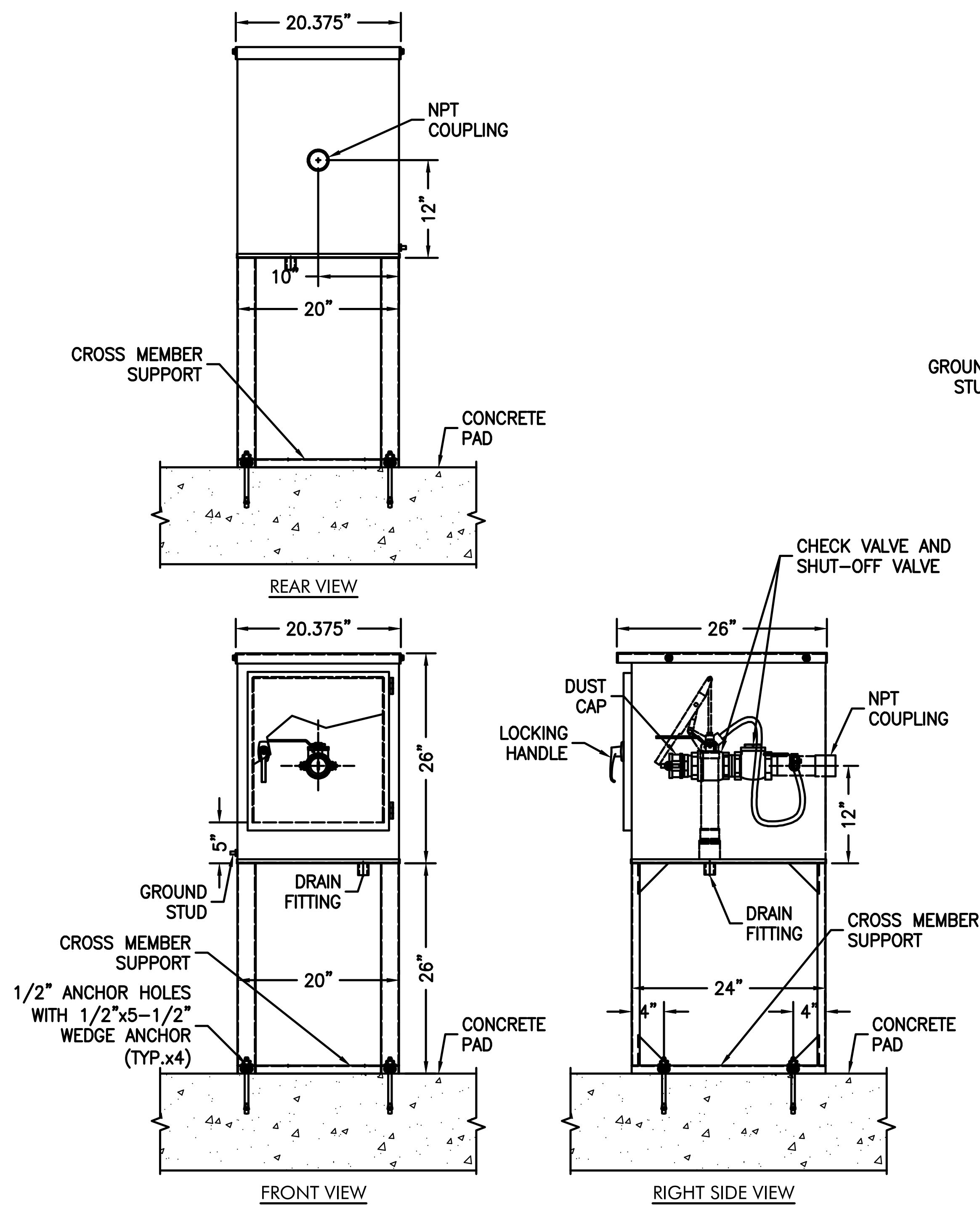
SCALE: NONE



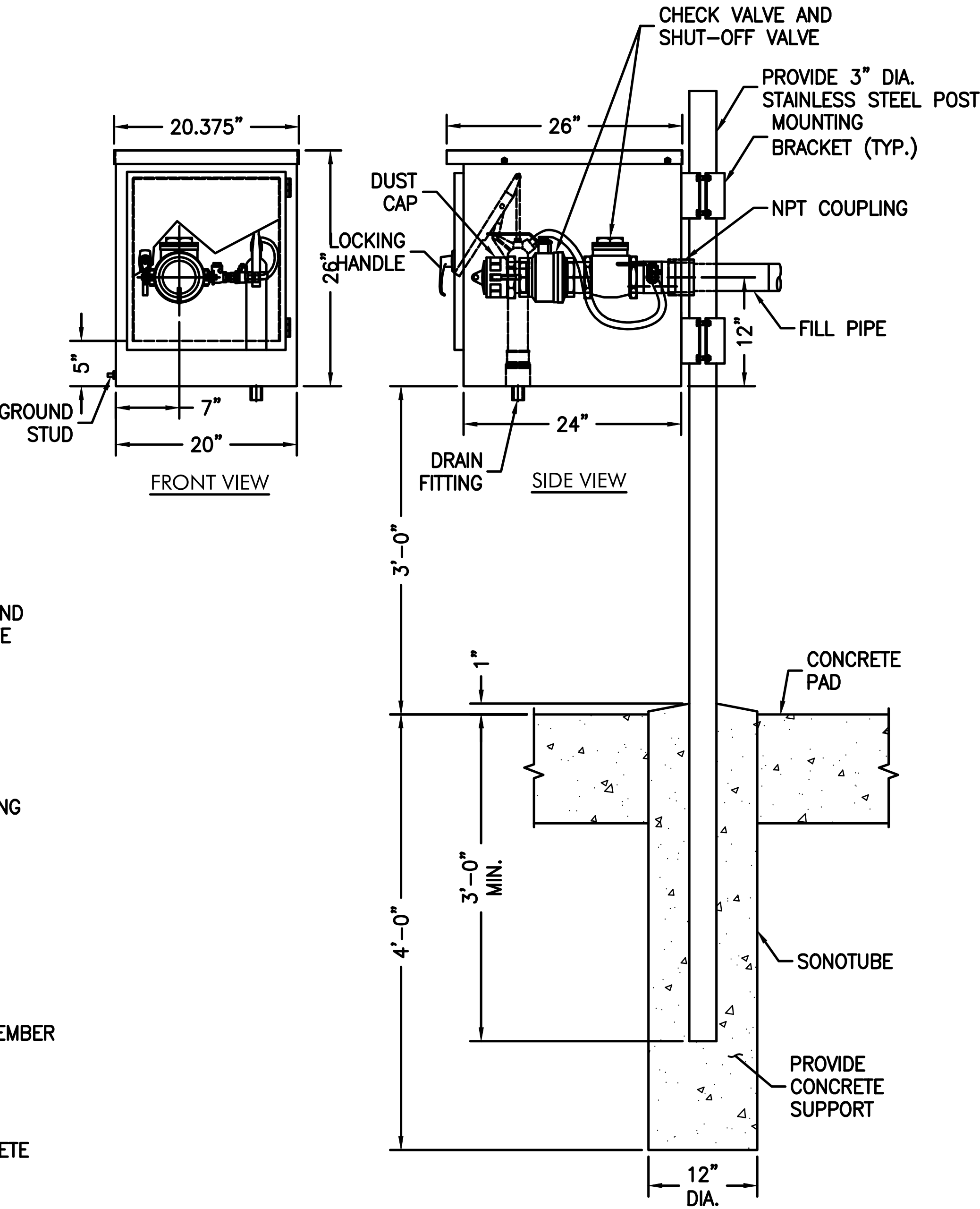
OVERFILL VALVE DETAIL



	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 — C	
DESIGNED BY:	M. GUTHMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
<p style="text-align: center;"> UST OVERFILL VALVE AND VENT PIPING DETAIL </p>		
DRAWING NUMBER:		
C-27		
SHEET	29	OF 51



TYPICAL SPILL CONTAINMENT STAND MOUNT DETAIL
SCALE: NONE



TYPICAL SPILL CONTAINMENT POST MOUNT DETAIL
SCALE: NONE

10-GALLON SPILL CONTAINMENT
FAIRFIELD INDUSTRIES ARFP SERIES OR EQUAL

Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE:

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CONTRACT:

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

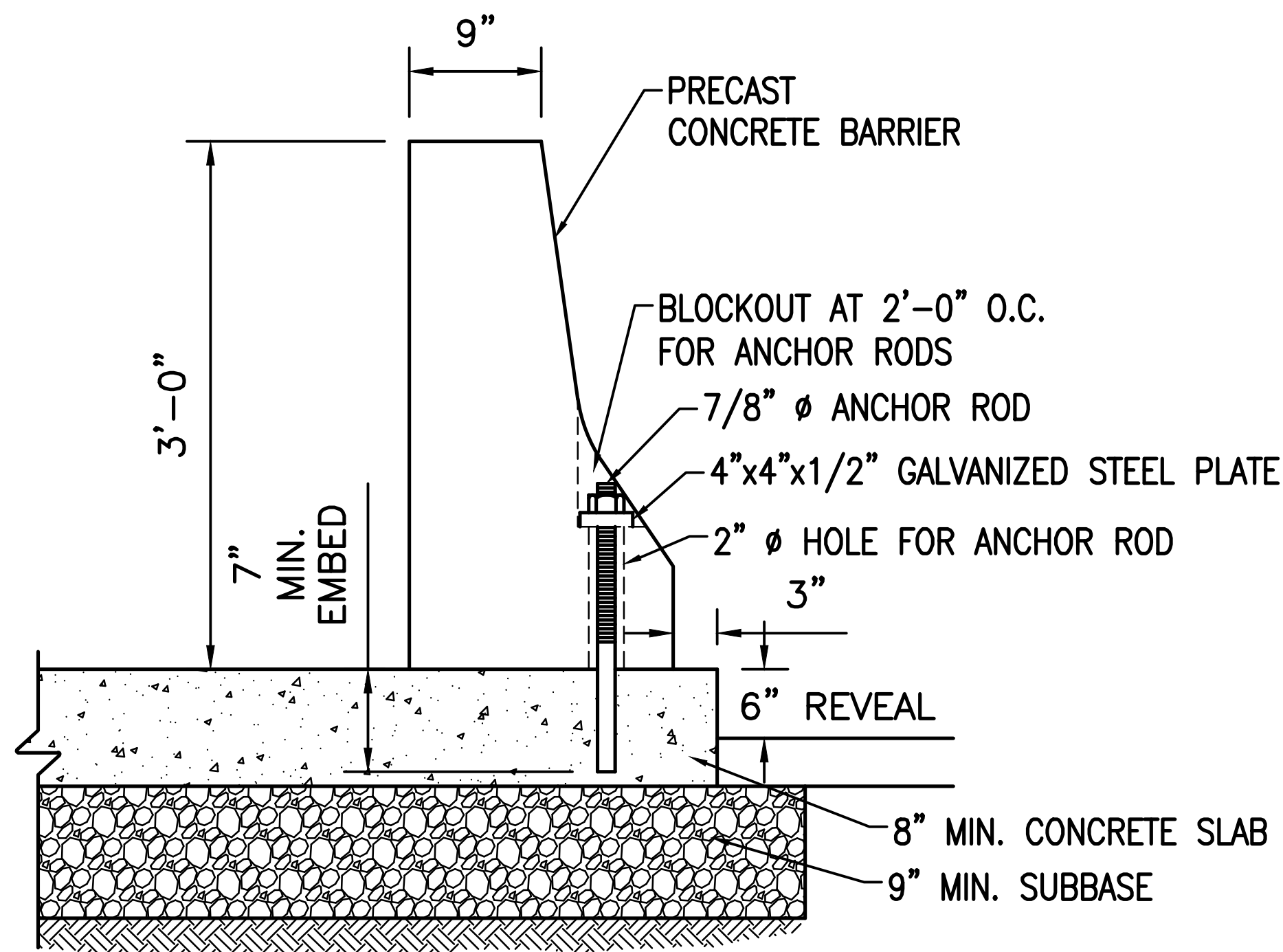
APPROVED: M. WESOLOWSKI

SHEET TITLE:

SPILL CONTAINMENT MOUNTING DETAILS

DRAWING NUMBER: C-28

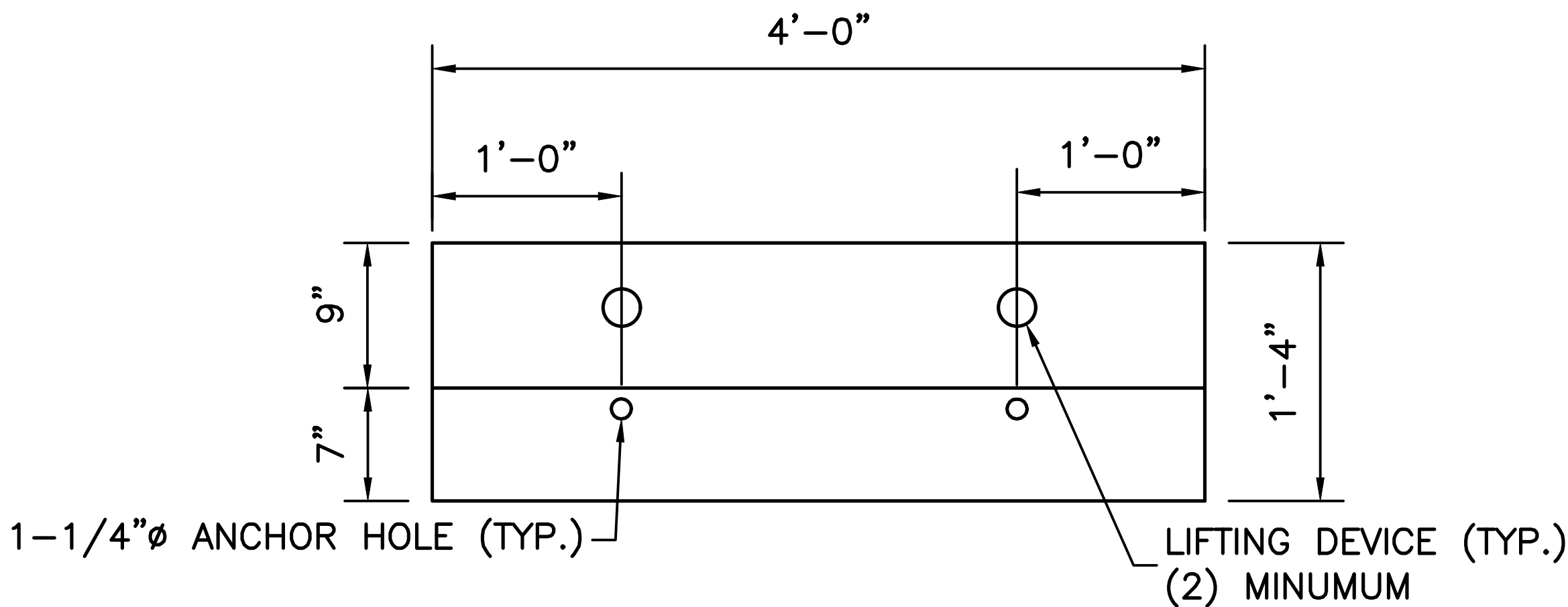
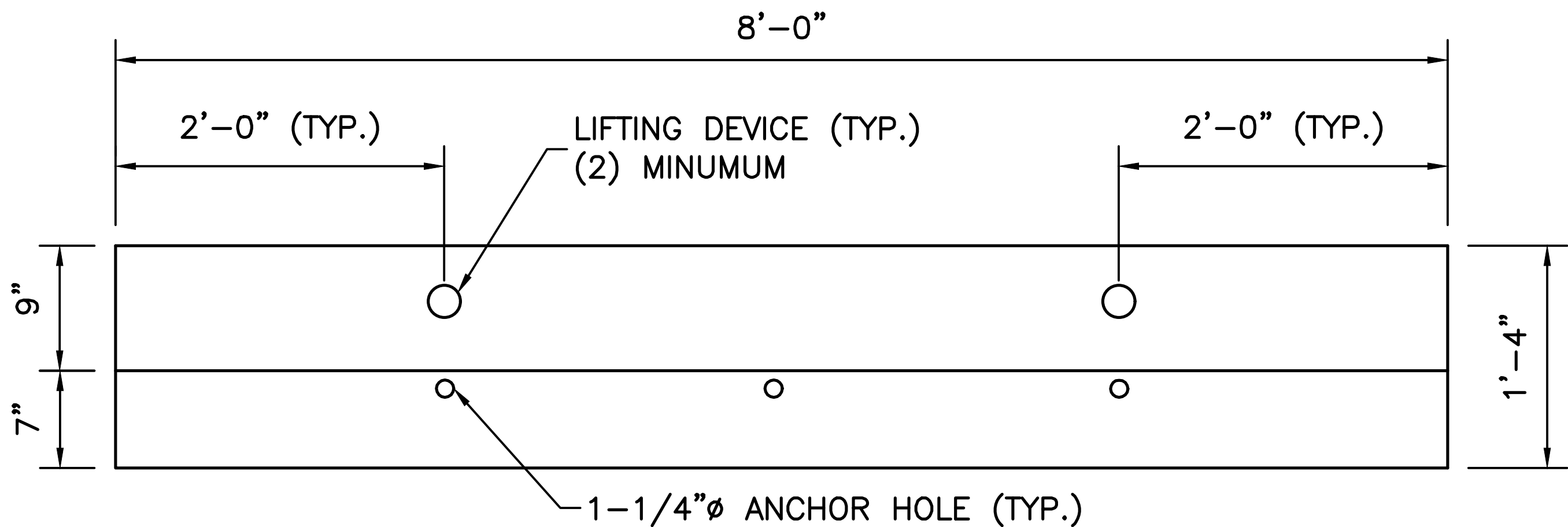
SHEET 30 OF 51



CONCRETE BARRIER
ATTACHMENT DETAIL
SCALE: NONE

NOTES:


1. CONCRETE FOR THE SLAB-ON-GRADE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
2. CONCRETE FOR THE PRECAST CONCRETE BARRIER SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI.
3. ANCHOR RODS SHALL BE 7/8" DIAMETER AND HAVE AN ULTIMATE TENSILE STRENGTH OF 60 KSI.
4. THE 4"x4"x1/2" STEEL PLATE SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
5. ANCHOR RODS SHALL BE DRILLED AND GROUTED INTO CONCRETE SLAB USING HILTI HVU CAPSULE ADHESIVE ANCHORING SYSTEM OR APPROVED EQUAL. ULTIMATE BOND/CONCRETE CAPACITY IN TENSION SHALL BE 36 KIPS.
6. AFTER ANCHOR RODS ARE INSTALLED IN CONCRETE SLAB, SET PRECAST BARRIER AND GROUT ANCHOR ROD HOLES IN BARRIER WITH NON-SHRINK GROUT FROM NYSDOT APPROVED MATERIALS LIST.
7. AFTER ANCHOR ROD HOLES ARE GROUTED, INSTALL 4"x4"x1/2" STEEL PLATE AND HEX NUT. TIGHTEN HEX NUT AND GROUT BLOCK-OUTS IN BARRIER WITH NON-SHRINK GROUT.
8. PROVIDE MINIMUM 3 FOOT DISTANCE BETWEEN THE TANK AND BOLLARD/BARRIER FOR NON IMPACT RESISTANT TANKS. IN ACCORDANCE WITH 2020 FIRE CODE OF NYS 2306.4 PHYSICAL PROTECTION, BOLLARDS/BARRIERS ARE NOT REQUIRED FOR UL-2085 IMPACT RESISTANT TANKS. THE BOLLARDS/BARRIERS WILL SERVE AS SECONDARY PROTECTION AND THE 3 FOOT DISTANCE MAY BE REDUCED.
9. PROVIDE BARRIERS THAT ARE A MINIMUM 36" IN HEIGHT RELATIVE TO SURROUNDING GRADE. BARRIERS MAY BE REDUCED IN HEIGHT IF PLACED ON RAISED PAD.



PLAN VIEW
SCALE: NONE

NOTES:

1. FOR 4'-0" BARRIER A MINIMUM OF TWO (2) ANCHOR HOLES ARE REQUIRED.
2. FOR 8'-0" BARRIER A MINIMUM OF THREE (3) ANCHOR HOLES ARE REQUIRED.




Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017005




LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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AND IS A CLASS 'A' MISDEMEANOR.



CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

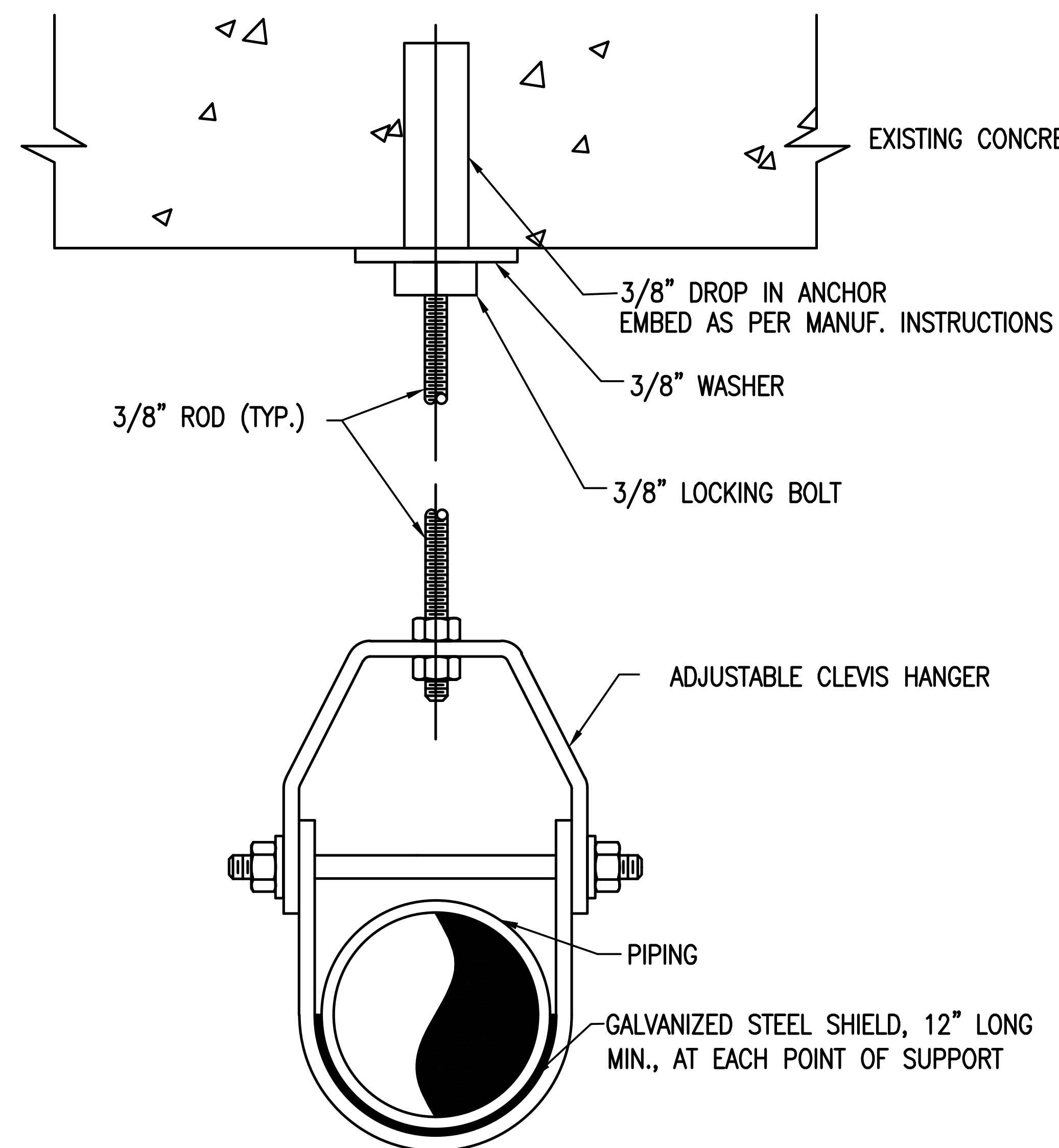
SHEET TITLE:

CONCRETE BARRIER
ANCHORING DETAILS

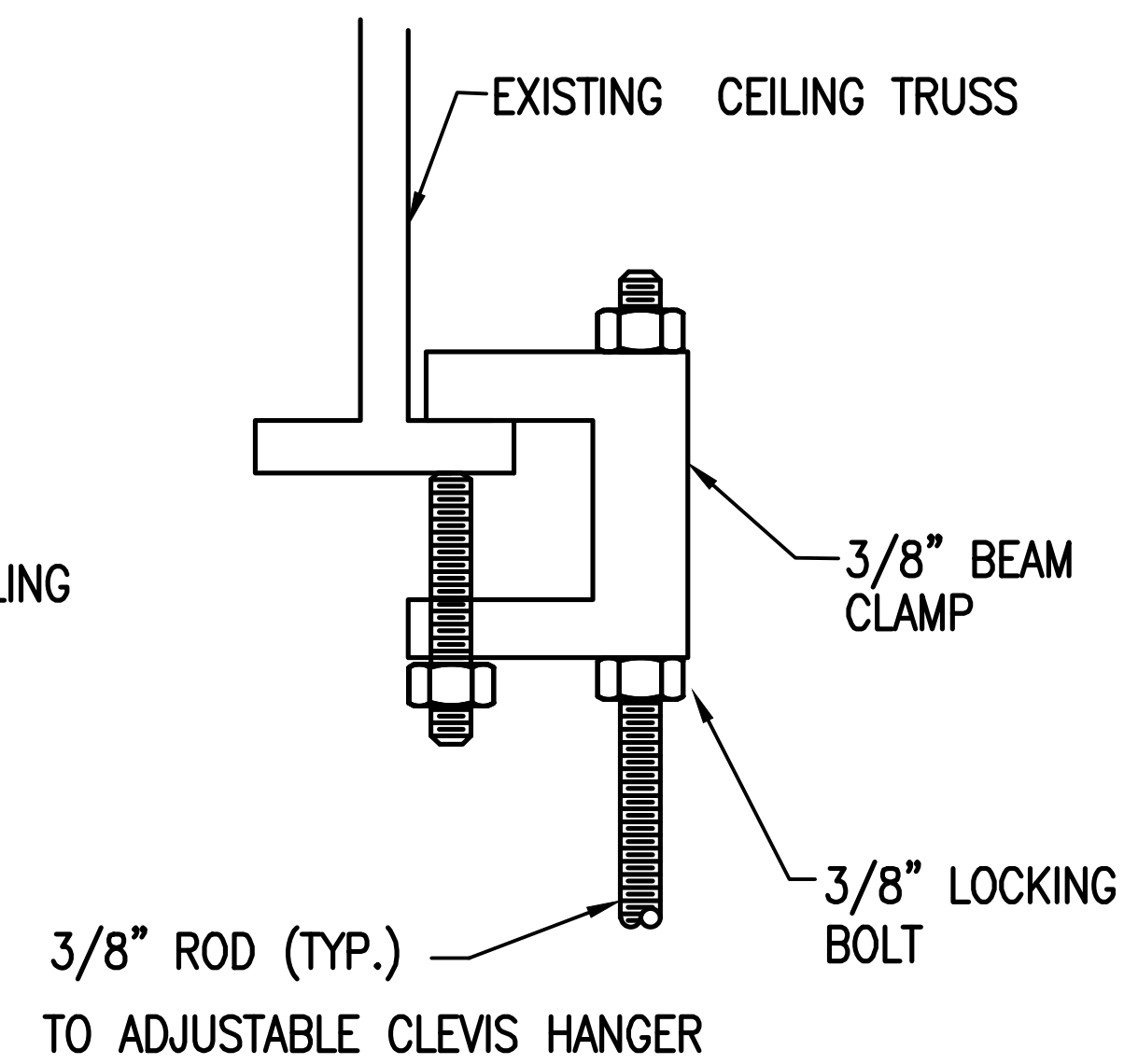
DRAWING NUMBER:

C-29

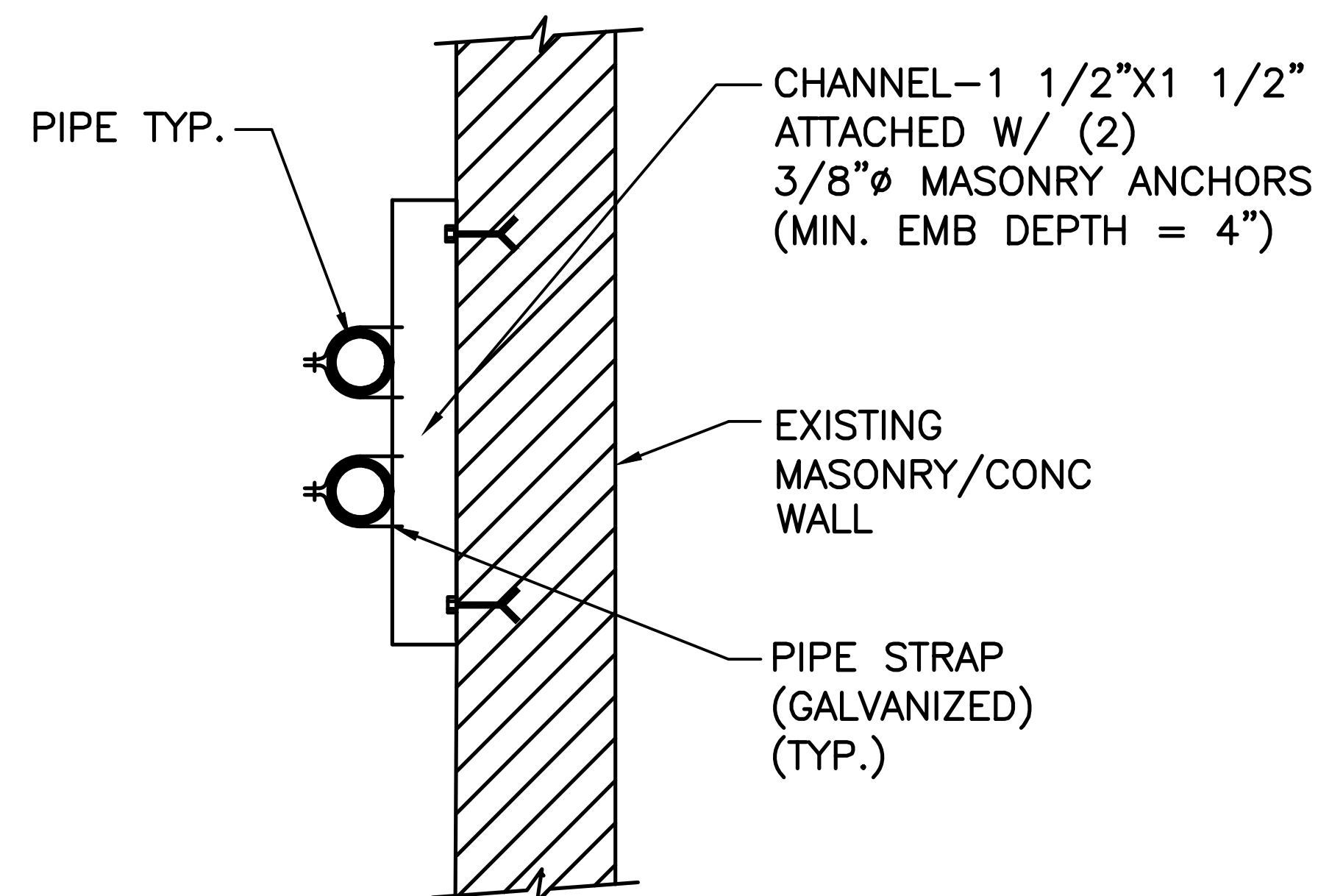
SHEET 31 OF 51



HANGER
SCALE: NONE

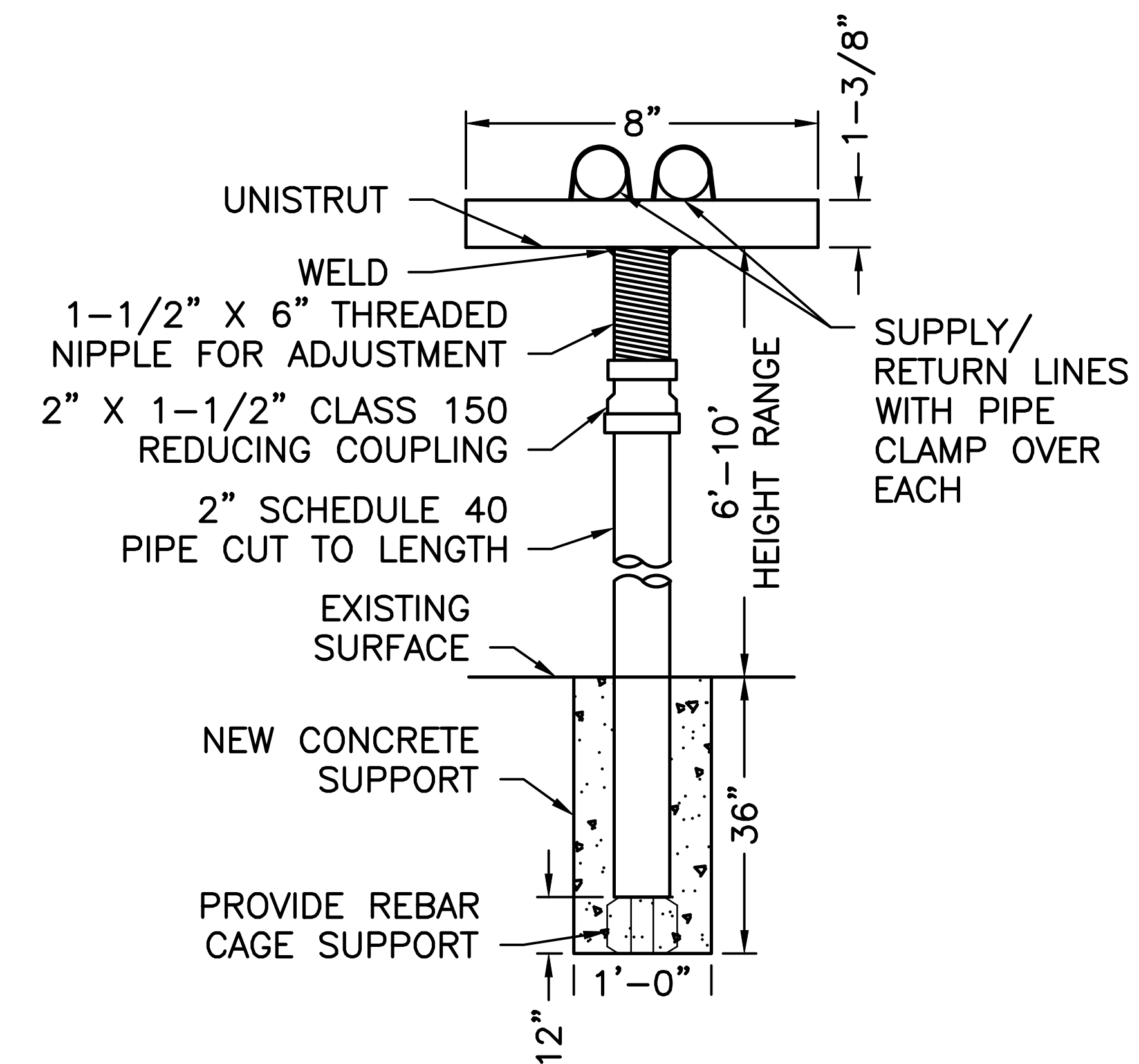


BEAM CLAMP
SCALE: NONE



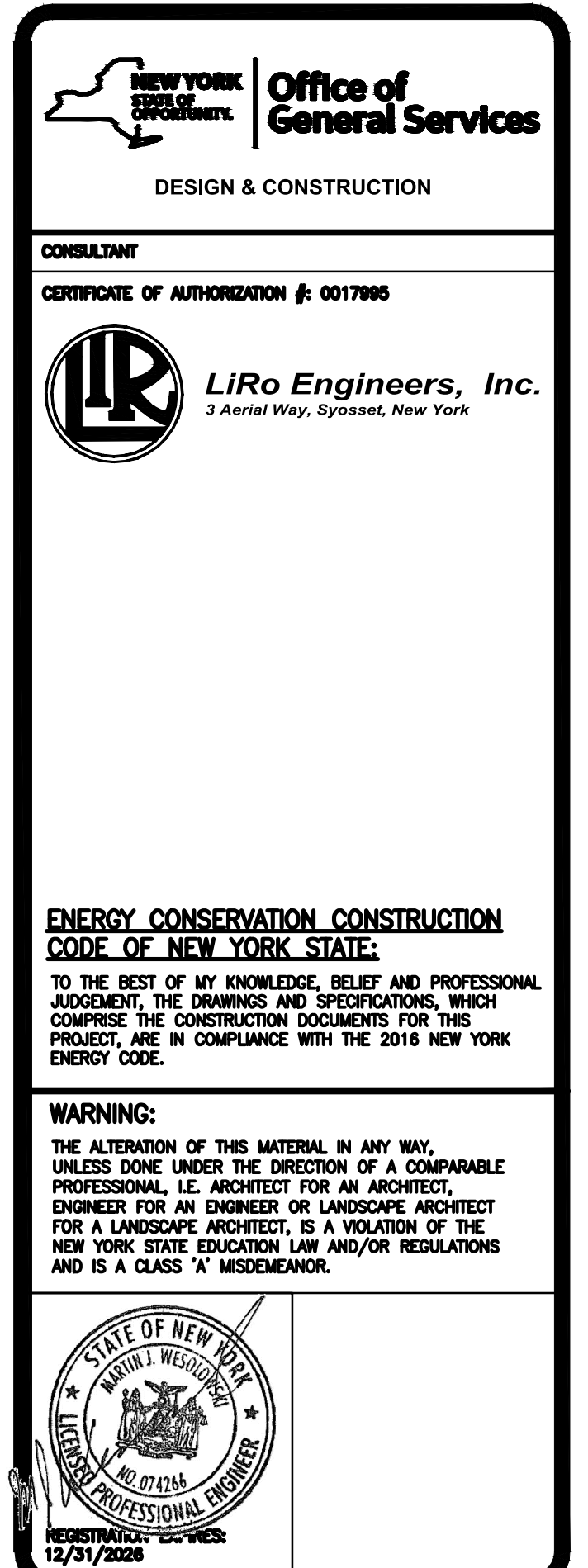
WALL SUPPORT

SCALE: NONE



TYPICAL PIPE SUPPORT

SCALE: NONE



CONTRACT:	
CONSTRUCTION	
TITLE:	FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM
LOCATION:	NORTHERN REGION VARIOUS FACILITIES

	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 — C	
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
<p style="text-align: center;">HANGER AND SUPPORT DETAILS</p>		
DRAWING NUMBER:		
<p style="text-align: center;">C-30</p>		
SHEET	32	OF 51

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

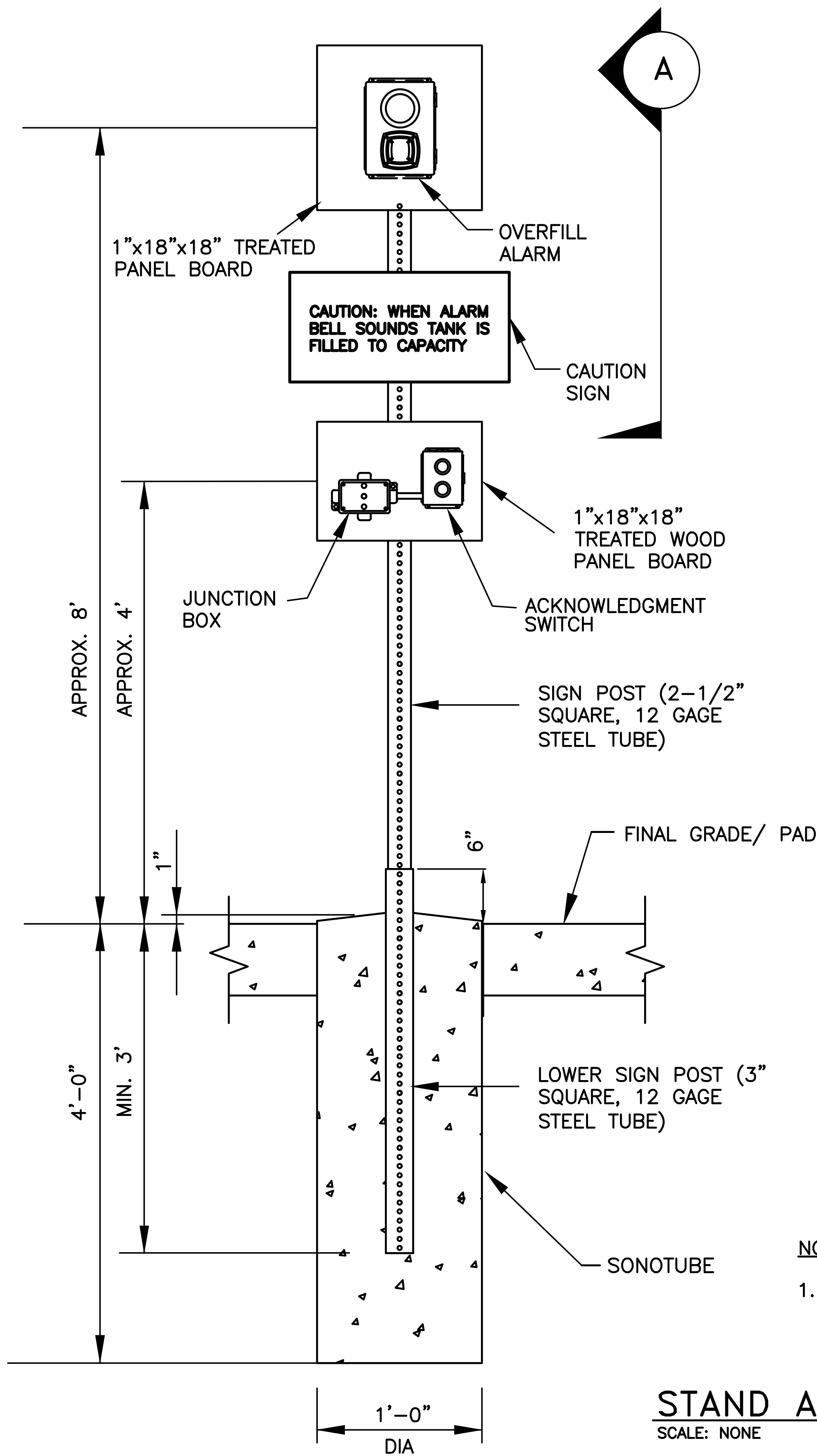
	1/31/2025	FINAL SUBMISSION
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673 - C	
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

STAIR, BOLLARD AND FIRE SUPPRESSION POST MOUNTING DETAILS

DRAWING NUMBER: C-31

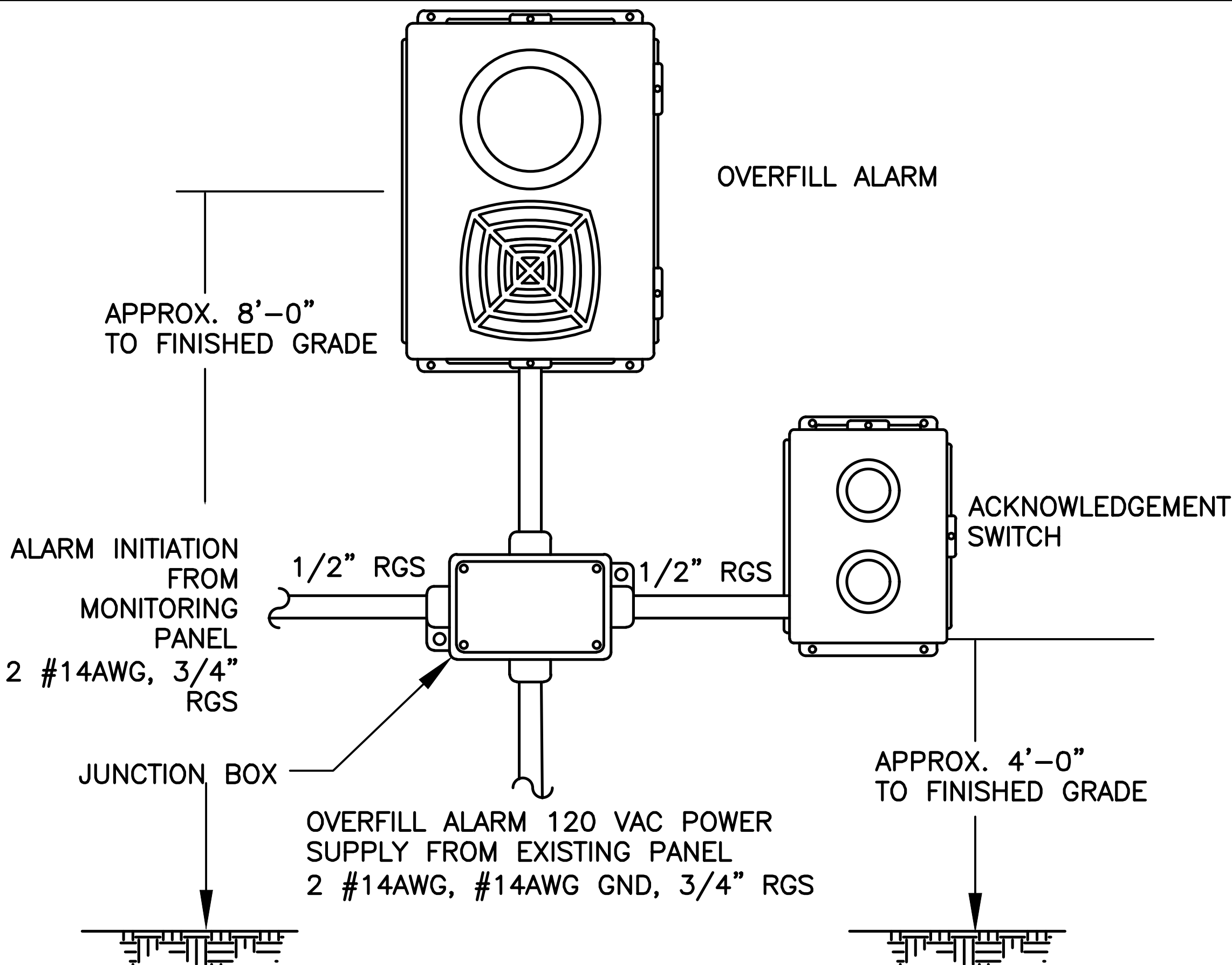
SHEET 33 OF 51

SCALE: NONE

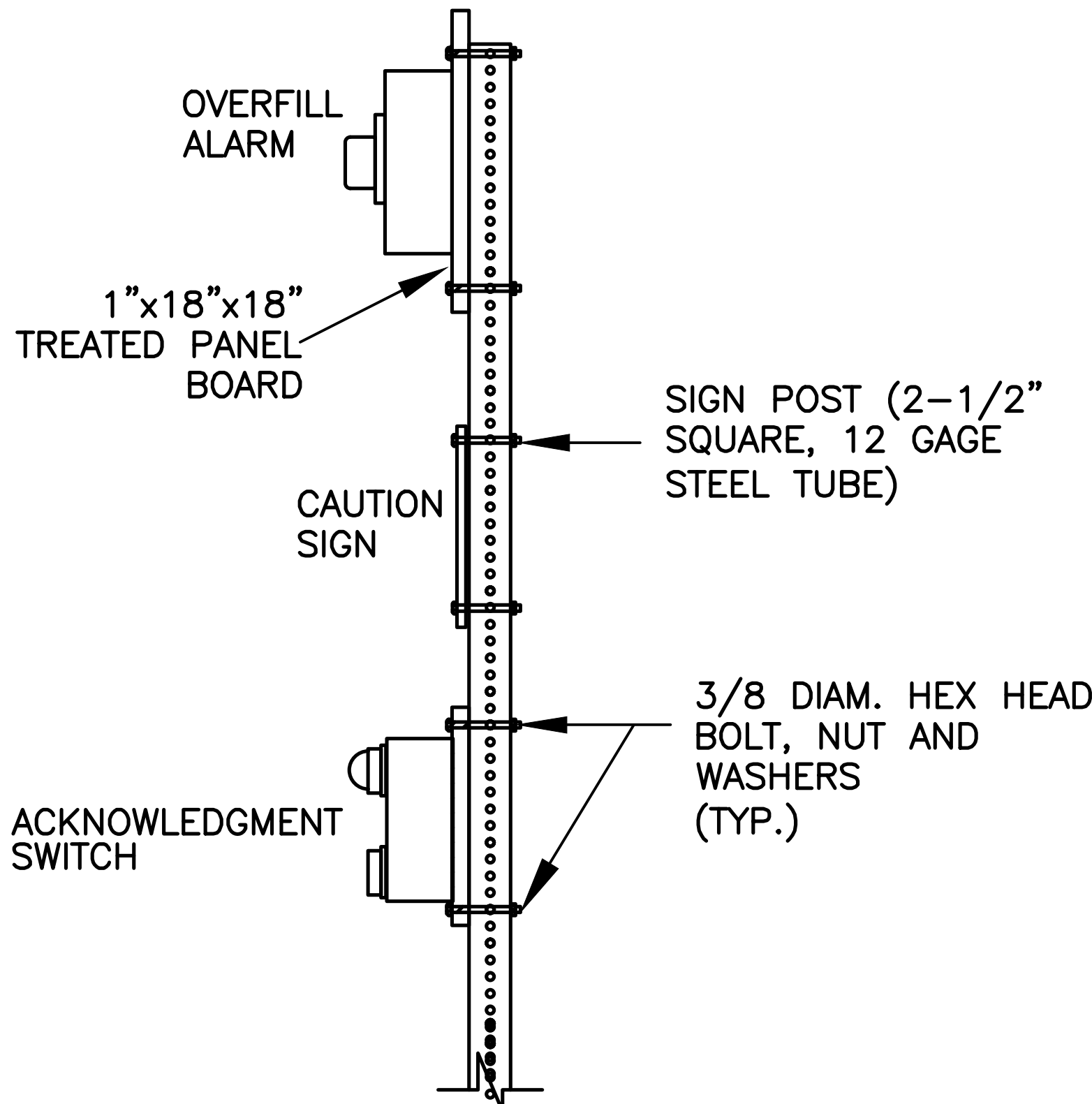


- NOTE:
1. ALARM TO BE POSITIONED IN CLOSE PROXIMITY AND IN CLEAR VIEW OF FILL PORT.

STAND ALONE ALARM AND DETAIL
SCALE: NONE



DETAIL
SCALE: NONE



VIEW A
SCALE: NONE

NEW YORK
STATE OF
CONSTITUTION

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

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CODE OF NEW YORK STATE:

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AND IS A CLASS "A" MISDEMEANOR.

STATE OF NEW YORK
LIBERTY & JUSTICE
PROFESSIONAL NUMBER
12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

OVERFILL ACKNOWLEDGMENT
ALARM DETAILS

DRAWING NUMBER:

C-32

SHEET

34

OF

51

NEW YORK

STATE OF

CORPORATION

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION
CODE OF NEW YORK STATE:

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STATE OF NEW YORK

LIBRARY OF PROFESSIONAL ENGINEERS

12/31/2025

CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	FINAL SUBMISSION
	1/31/2025	
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:
SIGNAGE DETAILS
& FUEL COLOR
CODING DETAILS

DRAWING NUMBER:
C-33

SHEET 35 OF 51

20"

1. NO SMOKING.

2. SHUT OFF MOTOR.

3. DISCAHARGE YOUR STATIC ELECTRICITY BEFORE FUELING BY TOUCHING A METAL SURFACE AWAY FROM THE NOZZLE.

4. TO PREVENT STATIC CHARGE, DO NOT RE-ENTER YOUR VEHICLE WHILE GASOLINE IS PUMPING.

5. IF A FIRE STARTS, DO NOT REMOVE NOZZLE - BACK AWAY IMMEDIATELY.

6. IT IS UNLAWFUL AND DANGEROUS TO DISPENSE GASOLINE INTO UNAPPROVED CONTAINERS.

7. NO FILLING OF PORTALBE CONTAINERS IN OR ON A MOTOR VEHICLE. PLACE CONTAINER ON GROUND BEFORE FILLING.

8. TURN OFF HANDHELD ELECTRICAL DEVICES BEFORE DISPENSING FUEL.

9. REMAIN WITH THE VEHICLE WHILE FUELING.

10. (LOCATION DESCRIPTION OF EMERGENCY FUEL SHUT-OFF SWITCH)

24"

24"

24" (TYP.)

GRAVITY FUEL
DROP ONLY
PUMPING PROHIBITED

SIGN SHALL BE POSTED ADJACENT TO FILL DROP LOCATION.

RED 2" LETTERS
WHITE BACKGROUND

CAUTION: WHEN ALARM
BELL SOUNDS TANK IS
FILLED TO CAPACITY

SIGN SHALL BE POSTED ADJACENT TO OVERFILL ALARM AND ACKNOWLEDGEMENT SWITCH.

12" (TYP.)

20"

12"

12"

EMERGENCY
FUEL
SHUT-OFF
SWITCH

WHITE
1-1/2"
LETTERS

RED
BACKGROUND

IN CASE OF FIRE, SPILL OR RELEASE
1. USE EMERGENCY PUMP SHUTOFF
2. REPORT THE ACCIDENT BY CALLING:
3. CALL FIRE DEPARTMENT AT:
4. CALL D.E.C. SPILL HOTLINE AT:
1-800-457-7362
5. TELL THEM FACILITY ADDRESS:

RED 3/4" TEXT/YELLOW BACKGROUND (TYP.)
YELLOW 3/4" TEXT/RED BACKGROUND (TYP.)

NOTES:
1. SIGN SHALL BE POSTED ADJACENT TO EMERGENCY FUEL SHUTOFF SWITCH.
2. PROVIDE SIGN ON ALL DISPENSERS DESCRIBING THE LOCATION OF THE EMERGENCY SHUT-OFF SWITCHES.

DARK GREEN
BIOFUEL OIL
BXX-X
BLACK
BXX-X WHERE XX IS THE BIOFUEL % AND "X" IS THE FUEL GRADE 1 OR 2
XX% NO X BIOFUEL OIL

YELLOW 3/4" TEXT/RED BACKGROUND

BLACK 1/2" LETTERS/WHITE BACKGROUND

PRODUCT:

THIS TANK CONFORMS WITH THE 6NYCRR PART 613

STANDARD OF DESIGN: TANK SIZE: DATE:

TANK MODEL: TANK No.:

SERIAL NUMBER: WORKING CAPACITY (GALLONS):

TANK REGISTRATION NUMBER: WORKING CAPACITY (INCHES):

STANDARD API SYMBOL FOR PRODUCT STORED

INST: (CONTRACTOR'S NAME) DATE: (DATE OF INSTALLATION)

12"

6"

YELLOW
OFF-ROAD (ULSD) ≤ 5% BIODIESEL
OFF-ROAD (ULSD) ≤ 5% BIODIESEL

YELLOW
OFF-ROAD (ULSD) > 5% BIODIESEL
OFF-ROAD (ULSD) XX% BIODIESEL

YELLOW
ON-ROAD (ULSD) ≤ 5% BIODIESEL
ON-ROAD (ULSD) ≤ 5% BIODIESEL

YELLOW
ON-ROAD (ULSD) > 5% BIODIESEL
ON-ROAD (ULSD) XX% BIODIESEL

BLACK
OFF-ROAD (ULSD) ≤ 5% BIODIESEL

BLACK
OFF-ROAD (ULSD) XX% BIODIESEL
WHERE XX IS THE BIODIESEL %

BLACK
ON-ROAD (ULSD) ≤ 5% BIODIESEL

BLACK
ON-ROAD (ULSD) XX% BIODIESEL
WHERE XX IS THE BIODIESEL %

COPPER
ETHANOL BLEND E15
E15

DARK GREEN
#2 FUEL OIL

BROWN
KEROSENE

LIGHT GRAY
USED OIL

COBALT BLUE
AUTOMOTIVE-GRADE DEF (AUS 32, ARLA32)

DIESEL EXHAUST FLUID, AUS 32, ARLA32

ORANGE
VAPOR RECOVERY

BLACK
E15

BLACK
#2 FUEL OIL

BLACK
KEROSENE

BLACK
USED OIL

BLACK
AUTOMOTIVE-GRADE DEF (AUS 32, ARLA32)

BLACK
DIESEL EXHAUST FLUID, AUS 32, ARLA32

BLACK
VAPOR RECOVERY

RED
PREMIUM GASOLINE
PREMIUM EO GASOLINE

BLUE
MIDGRADE GASOLINE
MIDGRADE EO GASOLINE

WHITE
REGULAR GASOLINE
REGULAR EO GASOLINE

RED
PREMIUM GASOLINE
PREMIUM E10 GASOLINE

BLUE
MIDGRADE GASOLINE
MIDGRADE E10 GASOLINE

WHITE
REGULAR GASOLINE
REGULAR E10 GASOLINE

WHITE
PREMIUM GASOLINE

WHITE
MIDGRADE GASOLINE

WHITE
REGULAR GASOLINE

WHITE
PREMIUM GASOLINE

WHITE
MIDGRADE GASOLINE

WHITE
REGULAR GASOLINE

SIGNAGE DETAILS
SCALE: NONE

FUEL & SYMBOLS
SCALE: NONE

COLOR AND SYMBOL CODES SHALL COMPLY WITH API RECOMMENDED PRACTICE 1637. FOURTH EDITION, APRIL 2020

WALL MOUNT FIRE
EXTINGUISHER SIGNAGE DETAIL
SCALE: NONE

POST MOUNT FIRE
EXTINGUISHER SIGNAGE DETAIL
SCALE: NONE

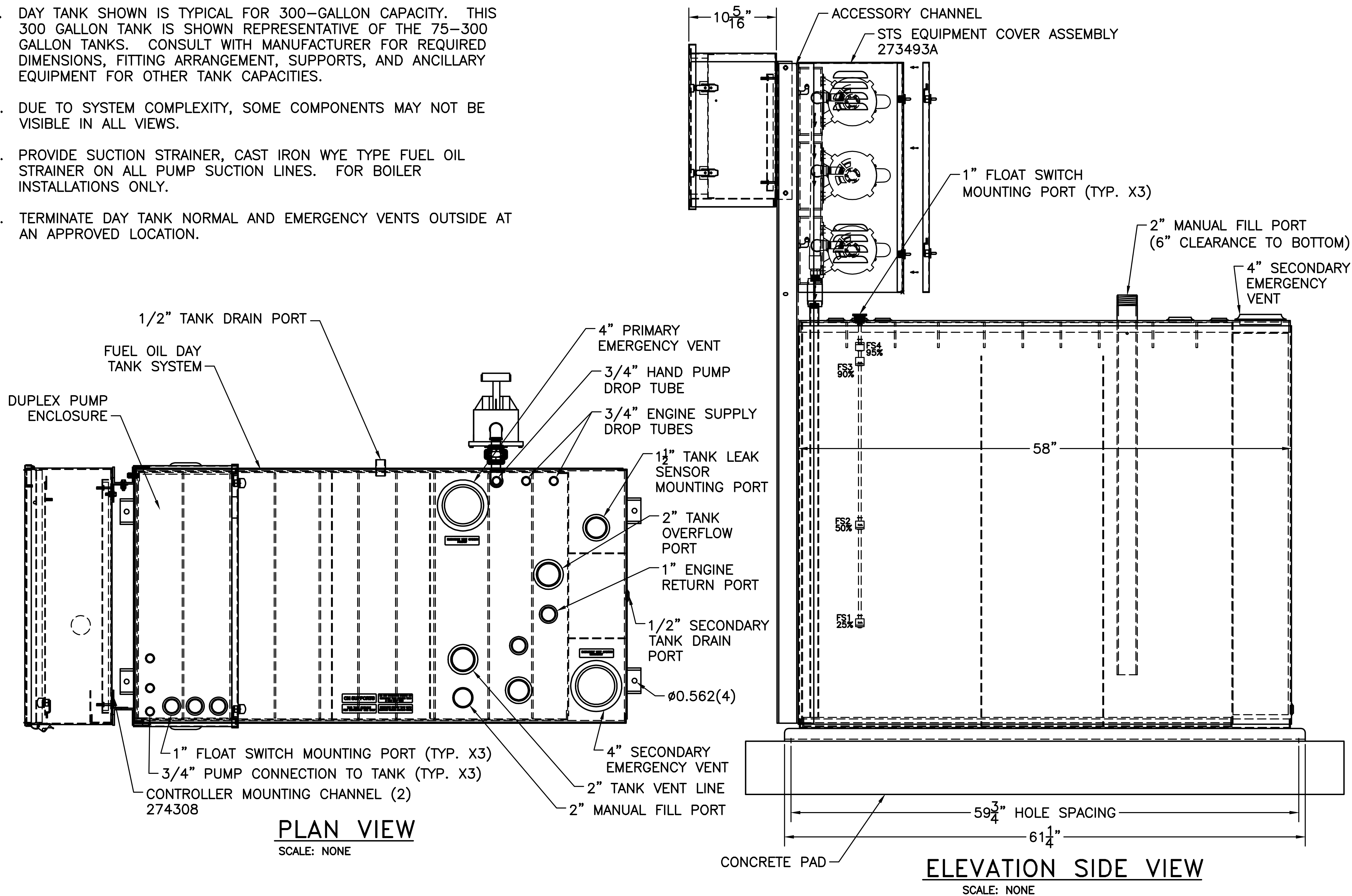
NFPA 704 STANDARD SYSTEM FOR THE
IDENTIFICATION OF THE HAZARDS OF
MATERIALS FOR EMERGENCY RESPONSE
SCALE: NONE

NOTES:

1. INSTALL LABEL ON ALL TANKS. LABEL SHALL BE SPECIFIC TO THE MATERIAL STORED IN ACCORDANCE WITH NFPA 704.
2. LABEL SHALL BE VINYL WITH SELF-ADHESIVE BACKING

NOTES:

- 1. DAY TANK SHOWN IS TYPICAL FOR 300-GALLON CAPACITY. THIS 300 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 75-300 GALLON TANKS. CONSULT WITH MANUFACTURER FOR REQUIRED DIMENSIONS, FITTING ARRANGEMENT, SUPPORTS, AND ANCILLARY EQUIPMENT FOR OTHER TANK CAPACITIES.
- 2. DUE TO SYSTEM COMPLEXITY, SOME COMPONENTS MAY NOT BE VISIBLE IN ALL VIEWS.
- 3. PROVIDE SUCTION STRAINER, CAST IRON WYE TYPE FUEL OIL STRAINER ON ALL PUMP SUCTION LINES. FOR BOILER INSTALLATIONS ONLY.
- 4. TERMINATE DAY TANK NORMAL AND EMERGENCY VENTS OUTSIDE AT AN APPROVED LOCATION.



NEW YORK STATE OF ENVIRONMENT | **Office of General Services**
DESIGN & CONSTRUCTION

CONSULTANT
CERTIFICATE OF AUTHORIZATION #: 0017985
LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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STATE OF NEW YORK
MAKIN I. WESOLOWSKI
REGISTERED PROFESSIONAL ENGINEER
12/31/2025

CONSTRUCTION
TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM
LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

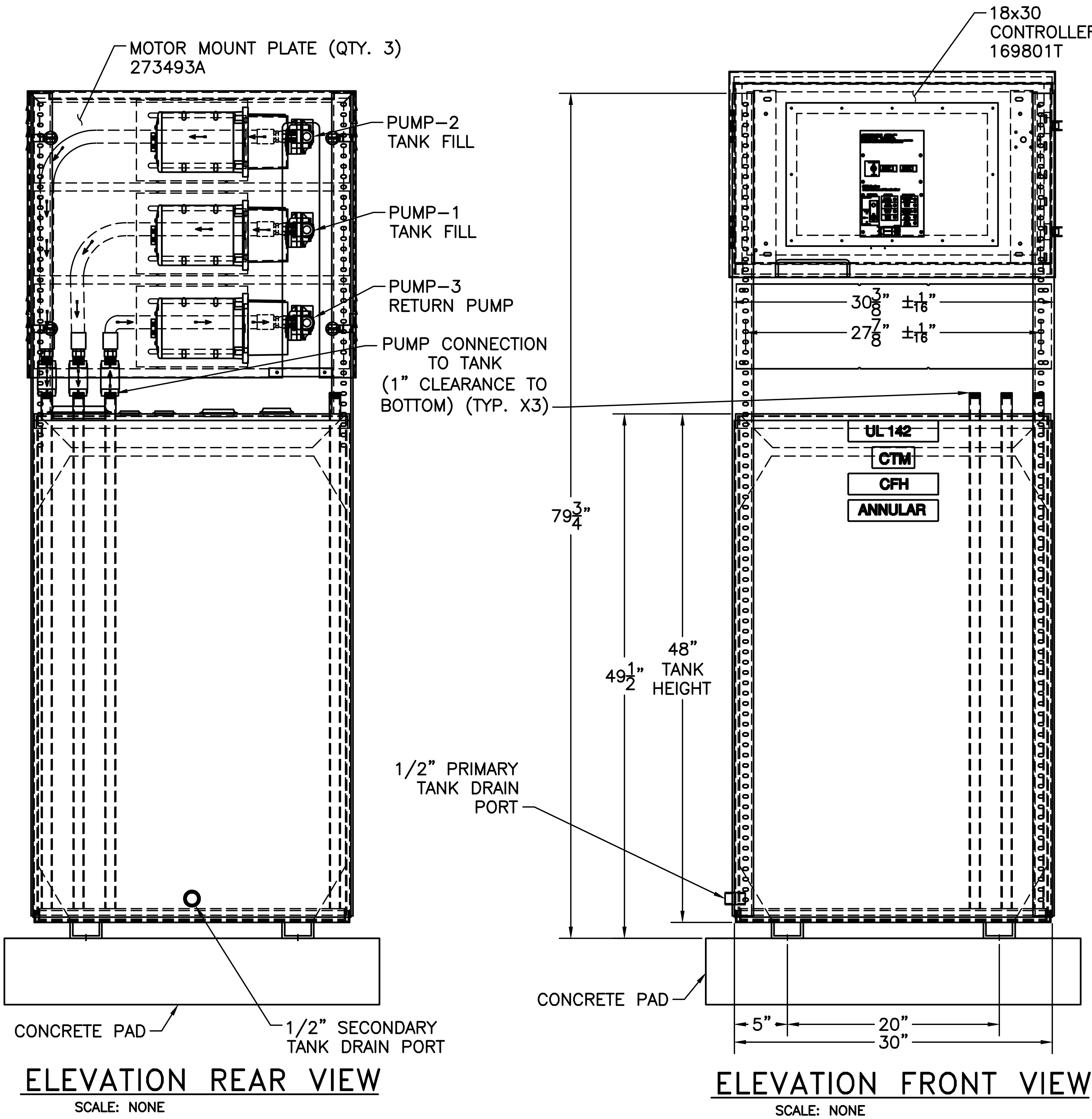
SHEET TITLE:
DAY TANK SHEET #1


DRAWING NUMBER:
C-35

SHEET 37 OF 51

NOTES:

- 1. DAY TANK SHOWN IS TYPICAL FOR 300-GALLON CAPACITY. THIS 300 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 75-300 GALLON TANKS. CONSULT WITH MANUFACTURER FOR REQUIRED DIMENSIONS, FITTING ARRANGEMENT, SUPPORTS, AND ANCILLARY EQUIPMENT FOR OTHER TANK CAPACITIES.
- 2. PROVIDE SUCTION STRAINER, CAST IRON WYE TYPE FUEL OIL STRAINER ON ALL PUMP SUCTION LINES. FOR BOILER INSTALLATION ONLY.
- 3. TERMINATE TANK NORMAL AND EMERGENCY VENTS OUTSIDE AT AN APPROVED LOCATION.






DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985




LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

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REGISTERED PROFESSIONAL ENGINEER
12/31/2026

CONTRACT:

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

APPROVED: M. WESOLOWSKI

SHEET TITLE:

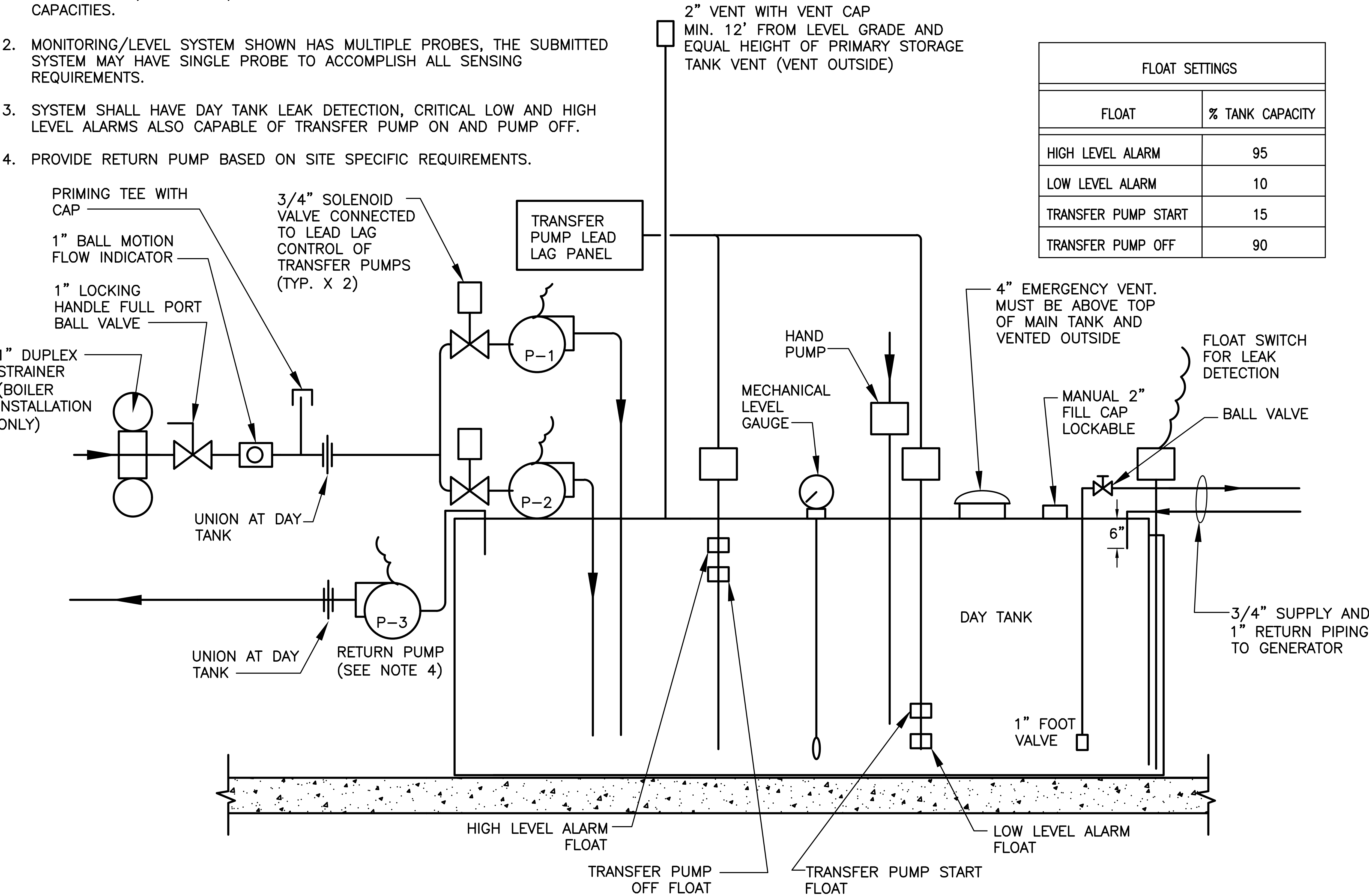
DAY TANK SHEET #2

DRAWING NUMBER: C-36

SHEET 38 OF 51

NOTES:

- 1. DAY TANK SHOWN IS TYPICAL FOR 300-GALLON CAPACITY. THIS 300 GALLON TANK IS SHOWN REPRESENTATIVE OF THE 75-300 GALLON TANKS. CONSULT WITH MANUFACTURER FOR REQUIRED DIMENSIONS, FITTING ARRANGEMENT, SUPPORTS, AND ANCILLARY EQUIPMENT FOR OTHER TANK CAPACITIES.
- 2. MONITORING/LEVEL SYSTEM SHOWN HAS MULTIPLE PROBES, THE SUBMITTED SYSTEM MAY HAVE SINGLE PROBE TO ACCOMPLISH ALL SENSING REQUIREMENTS.
- 3. SYSTEM SHALL HAVE DAY TANK LEAK DETECTION, CRITICAL LOW AND HIGH LEVEL ALARMS ALSO CAPABLE OF TRANSFER PUMP ON AND PUMP OFF.
- 4. PROVIDE RETURN PUMP BASED ON SITE SPECIFIC REQUIREMENTS.



DAY TANK DIAGRAM
SCALE: NONE

NEW YORK

STATE OF

DESIGN & CONSTRUCTION

Office of

General Services

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017995

LiRo Engineers, Inc.

3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE

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STATE OF NEW YORK

REGISTERED PROFESSIONAL ENGINEER

12/31/2025

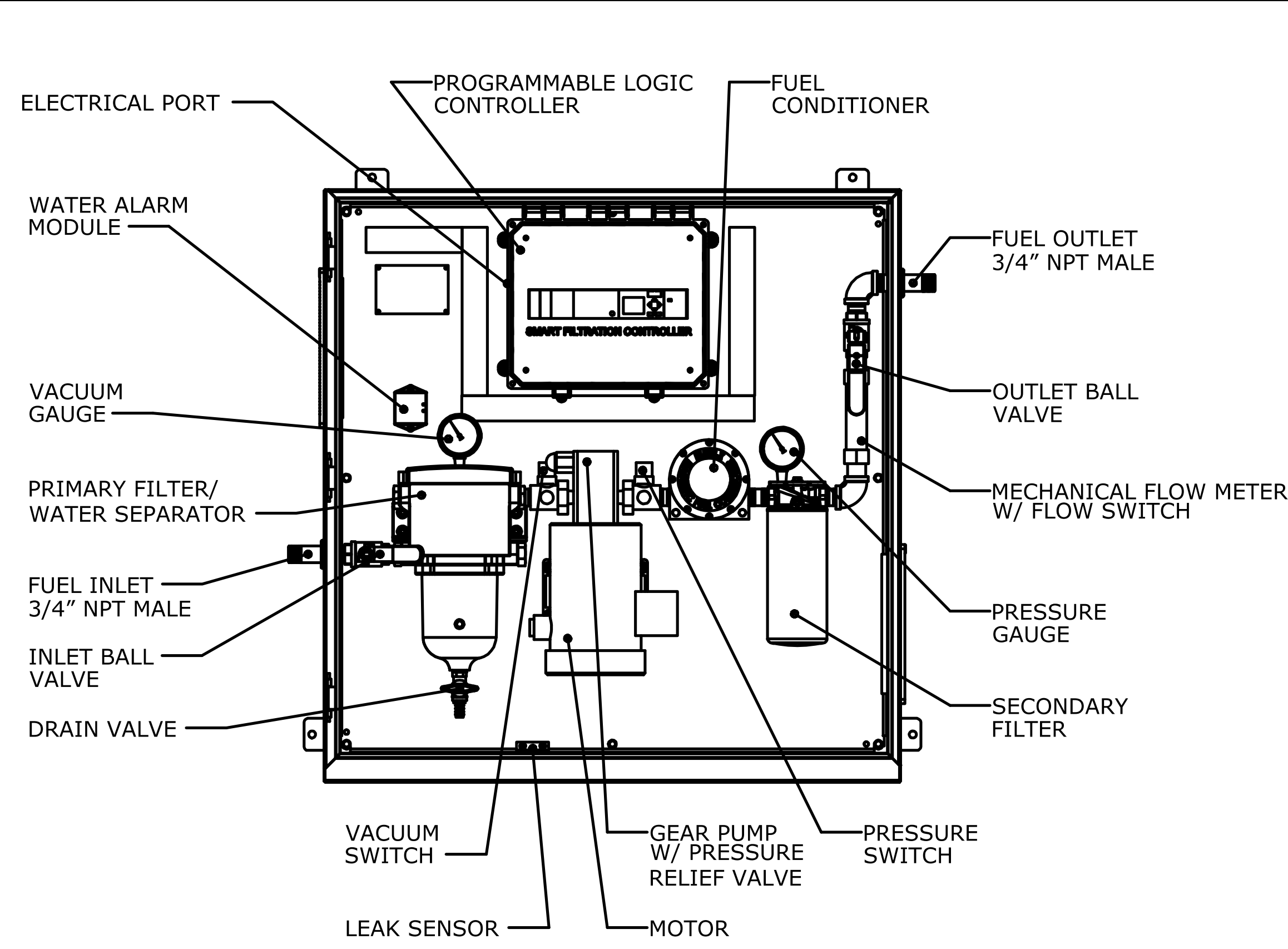
CONTRACT:

CONSTRUCTION

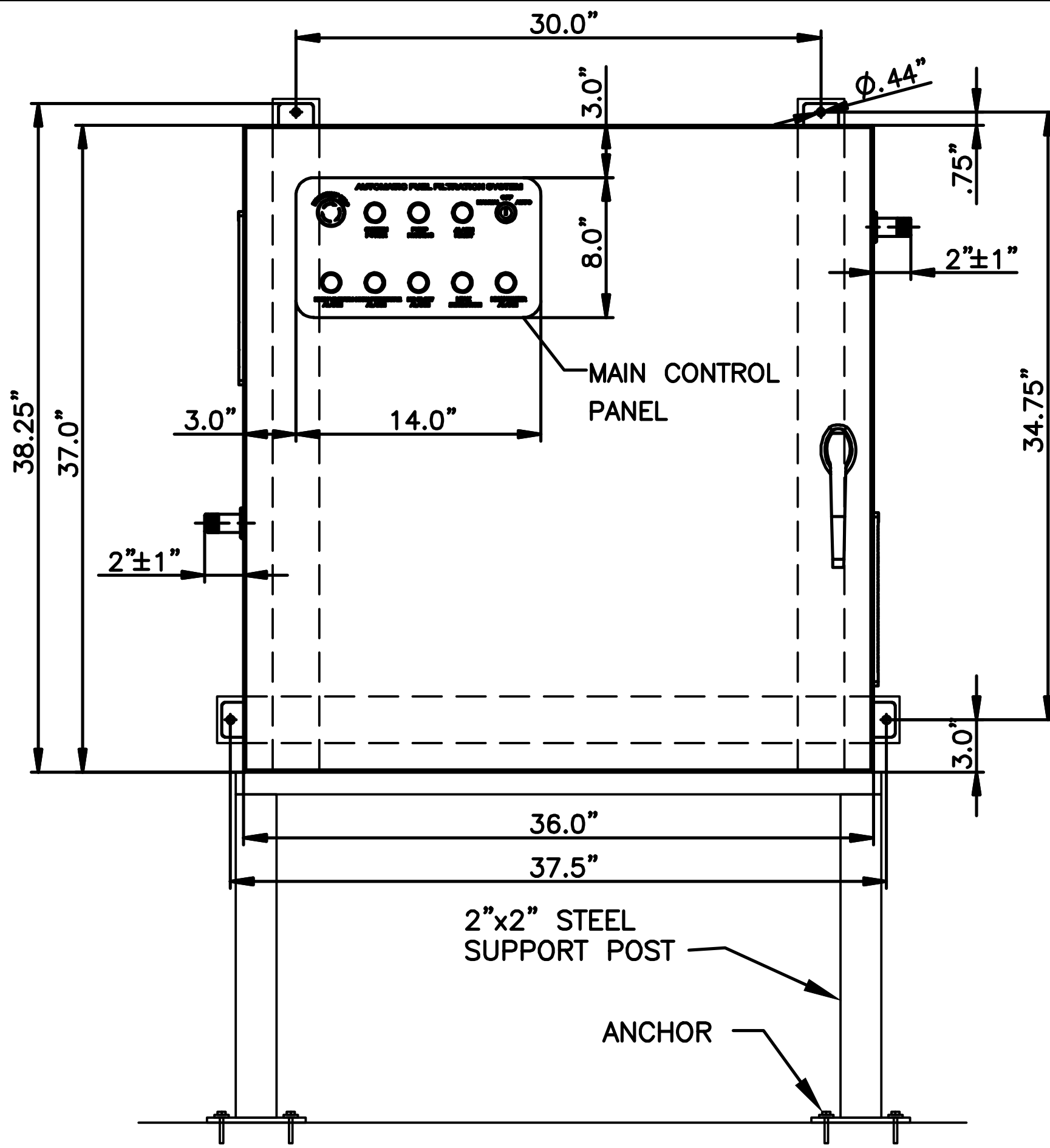
TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

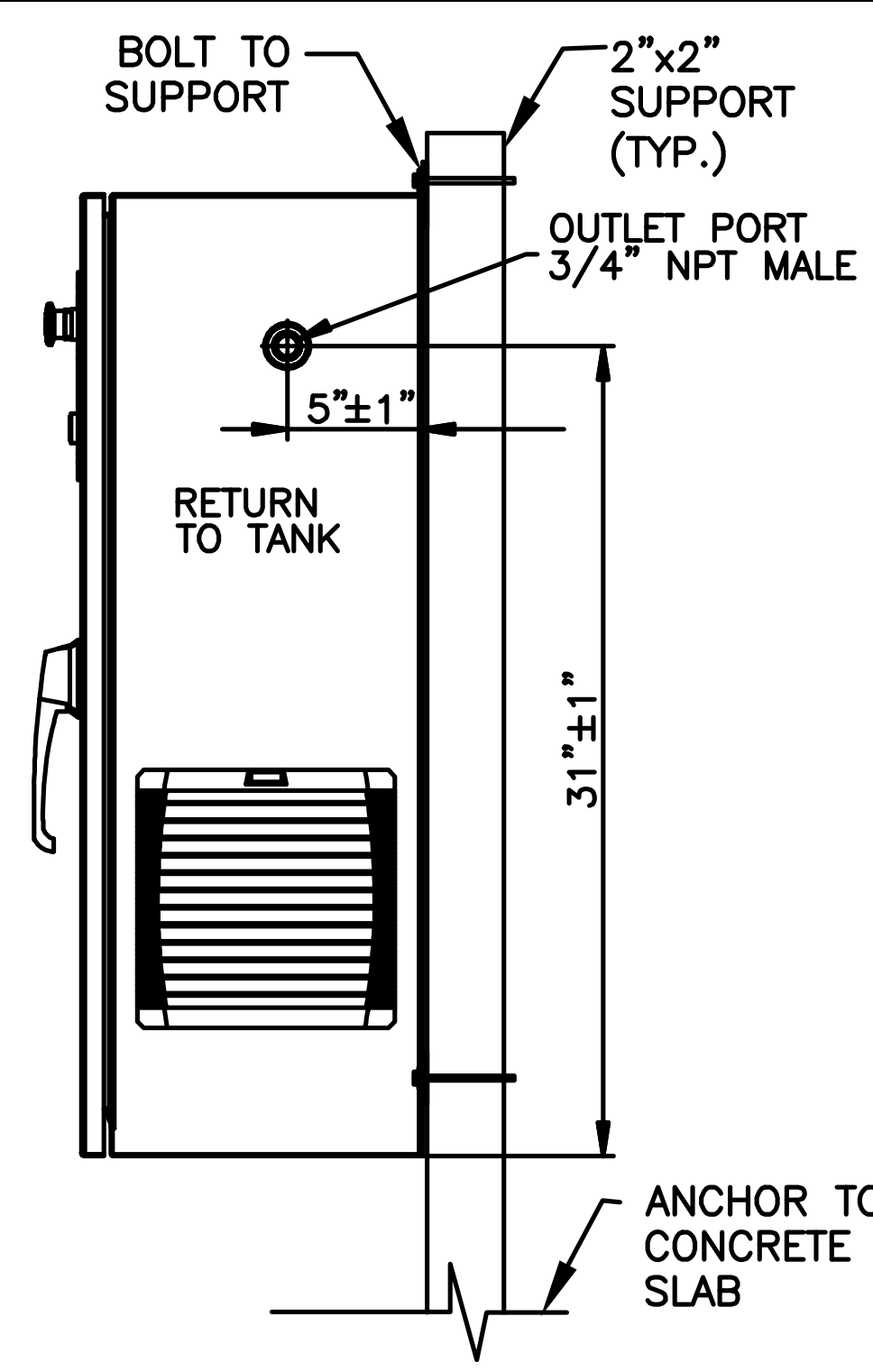
1/31/2025	FINAL SUBMISSION	
MARK	DATE	DESCRIPTION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
DOUBLEWALL ABOVEGROUND DAY TANK PIPING DIAGRAM		
DRAWING NUMBER:		
C-37		
SHEET	39	OF 51



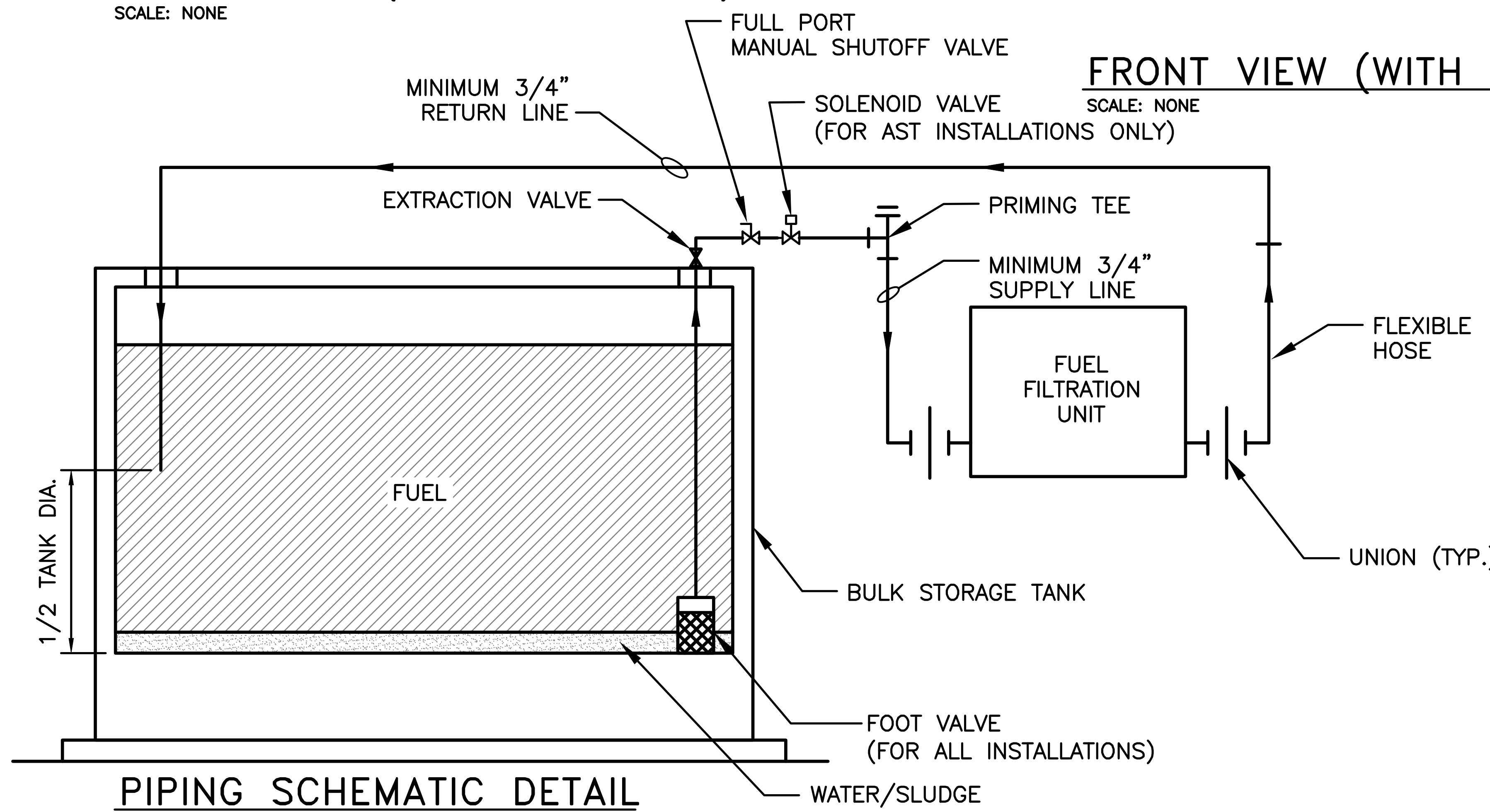
FRONT VIEW (WITHOUT COVER)
SCALE: NONE



FRONT VIEW (WITH COVER)
SCALE: NONE



SIDE VIEW
SCALE: NONE



PIPING SCHEMATIC DETAIL
SCALE: NONE

- NOTES:
1. PIPING TO BE SIZED PER INSTALLATION AND TO RUN AS STRAIGHT AS POSSIBLE WITH MINIMUM NUMBER OF FITTINGS.
 2. SUCTION LINES AND RETURN LINES ARE TO BE INSTALLED ON OPPOSITE ENDS OF PETROLEUM BULK STORAGE TANK, WITH THE SUCTION LINE AT THE LOWEST POINT OF THE TANK.
 3. FLEXIBLE HOSE LENGTH TO BE DETERMINED FOR EACH INSTALLATION
 4. FILTRATION SYSTEM IS TYPICALLY INSTALLED OUTDOOR AT THE TANK LOCATION. PROVIDE FILTRATION SYSTEM WITH WEATHERTIGHT ENCLOSURE AND HEATER OPTION FOR OUTDOOR INSTALLATIONS.
 5. FILTRATION SYSTEM SUPPORT SHALL BE PROVIDED FOR ALL INSTALLATIONS.

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017905

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CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER:

47673 - C

DESIGNED BY:

M. GUTMANN

DRAWN BY:

A. KELLY

FIELD CHECK:

M. WESOLOWSKI

APPROVED:

M. WESOLOWSKI

SHEET TITLE:

FUEL FILTRATION SYSTEM DETAIL

DRAWING NUMBER:

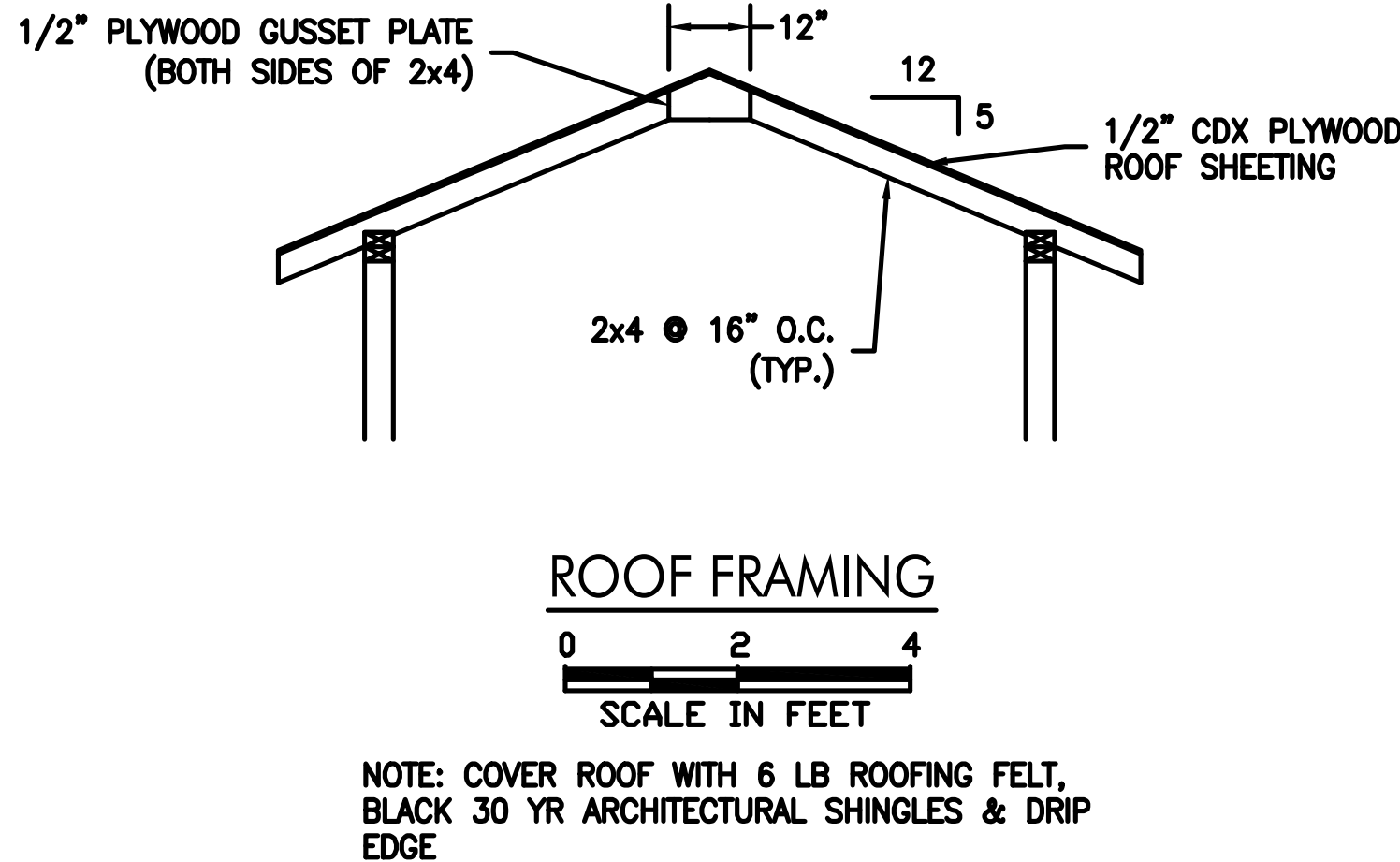
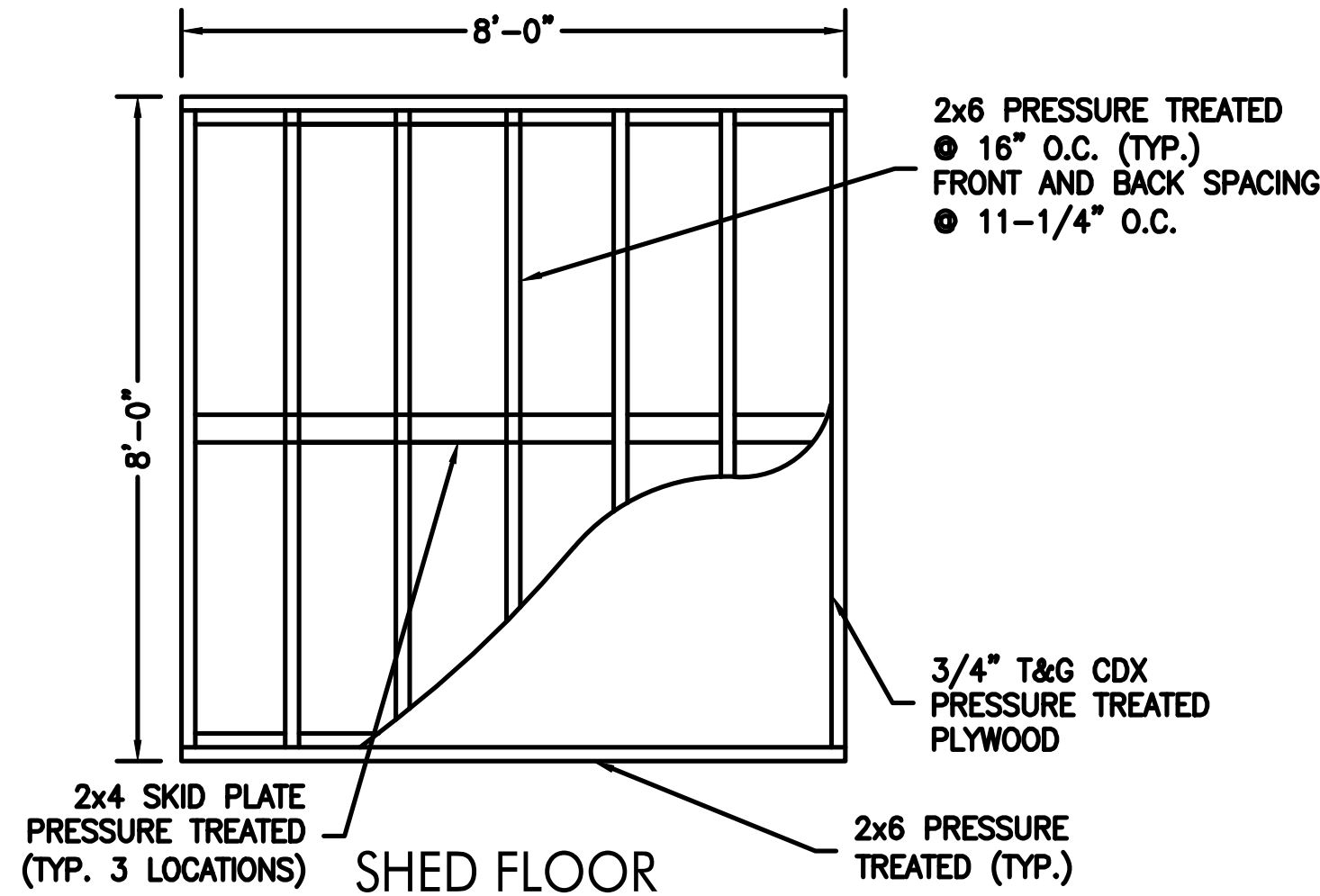
C-38

SHEET

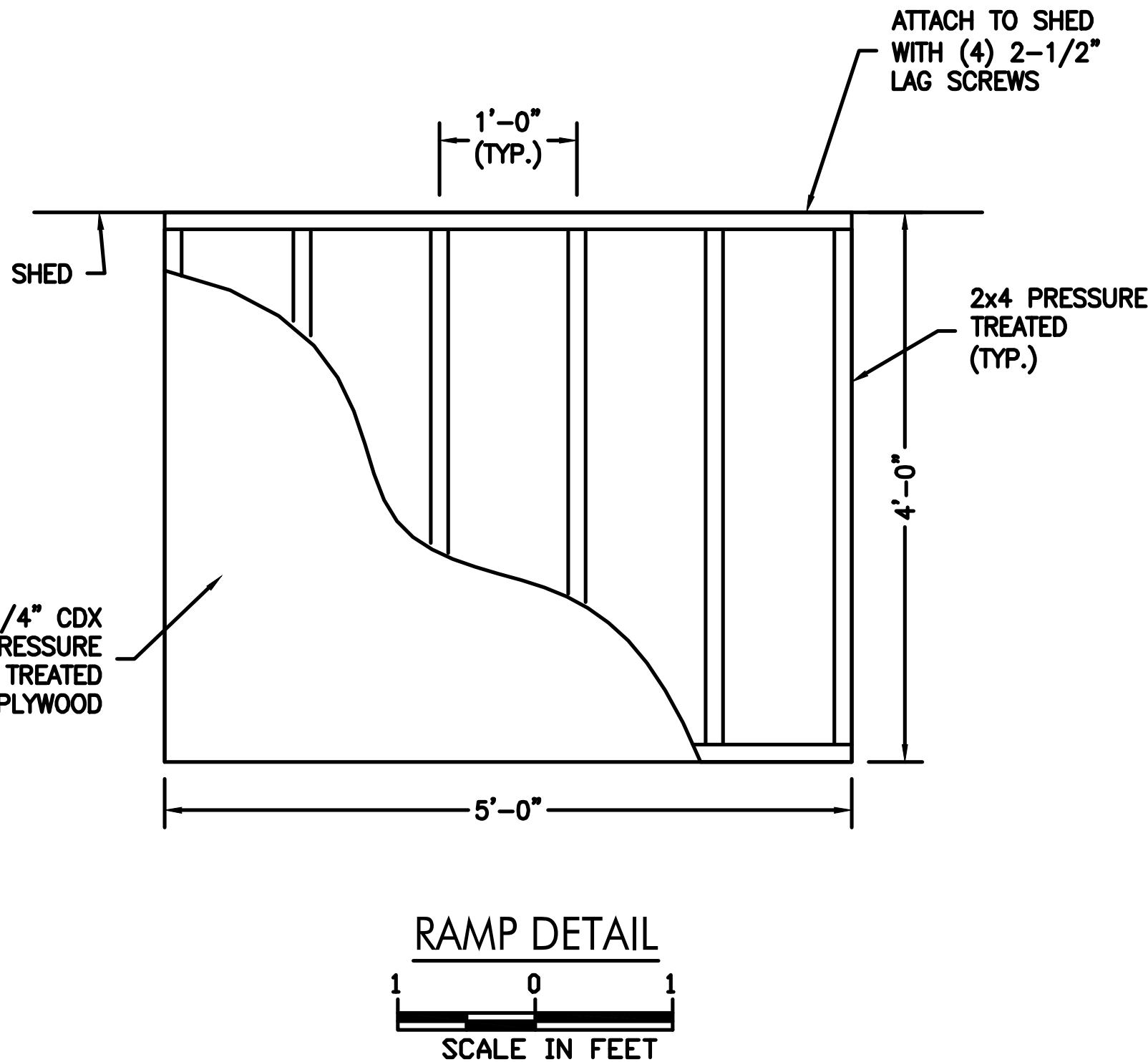
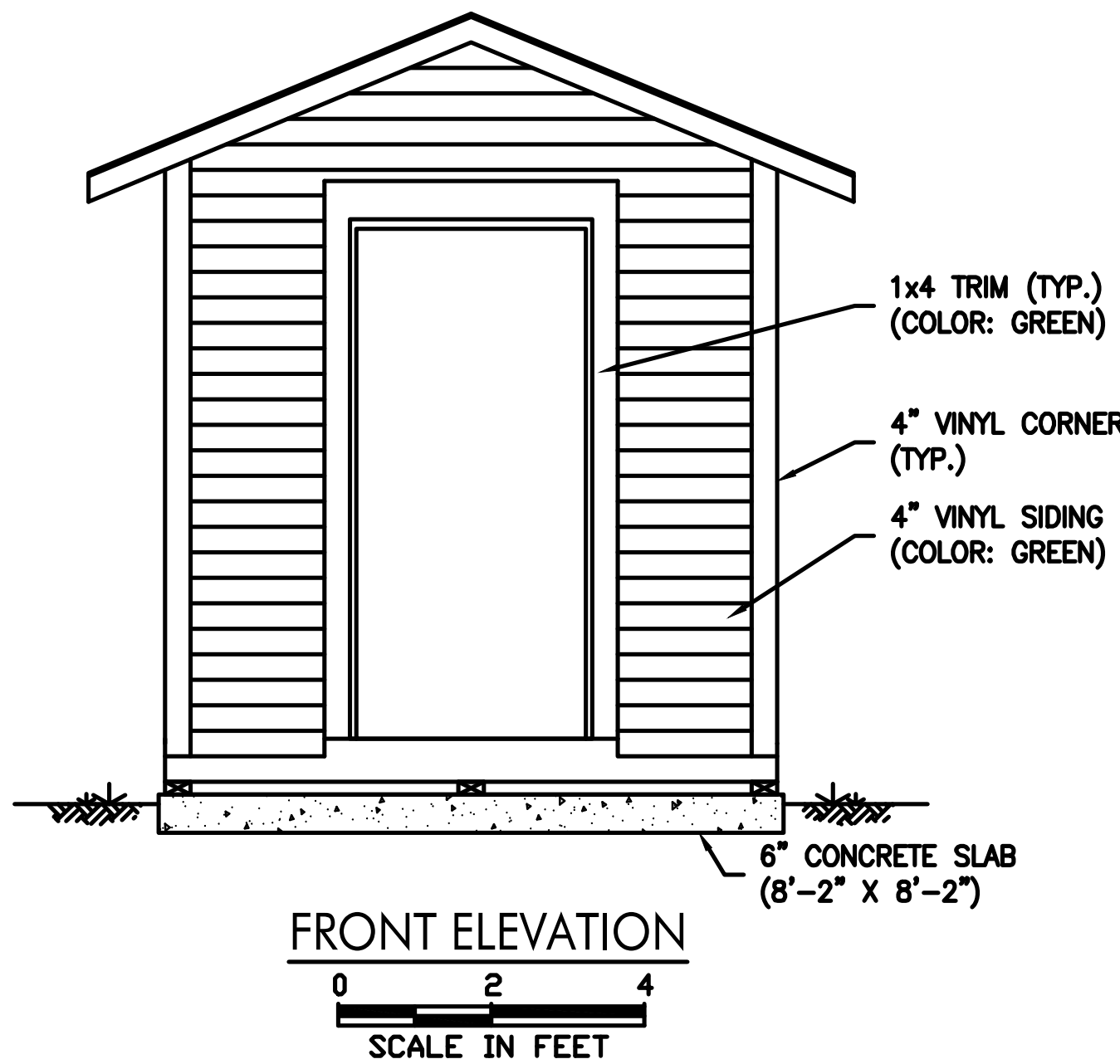
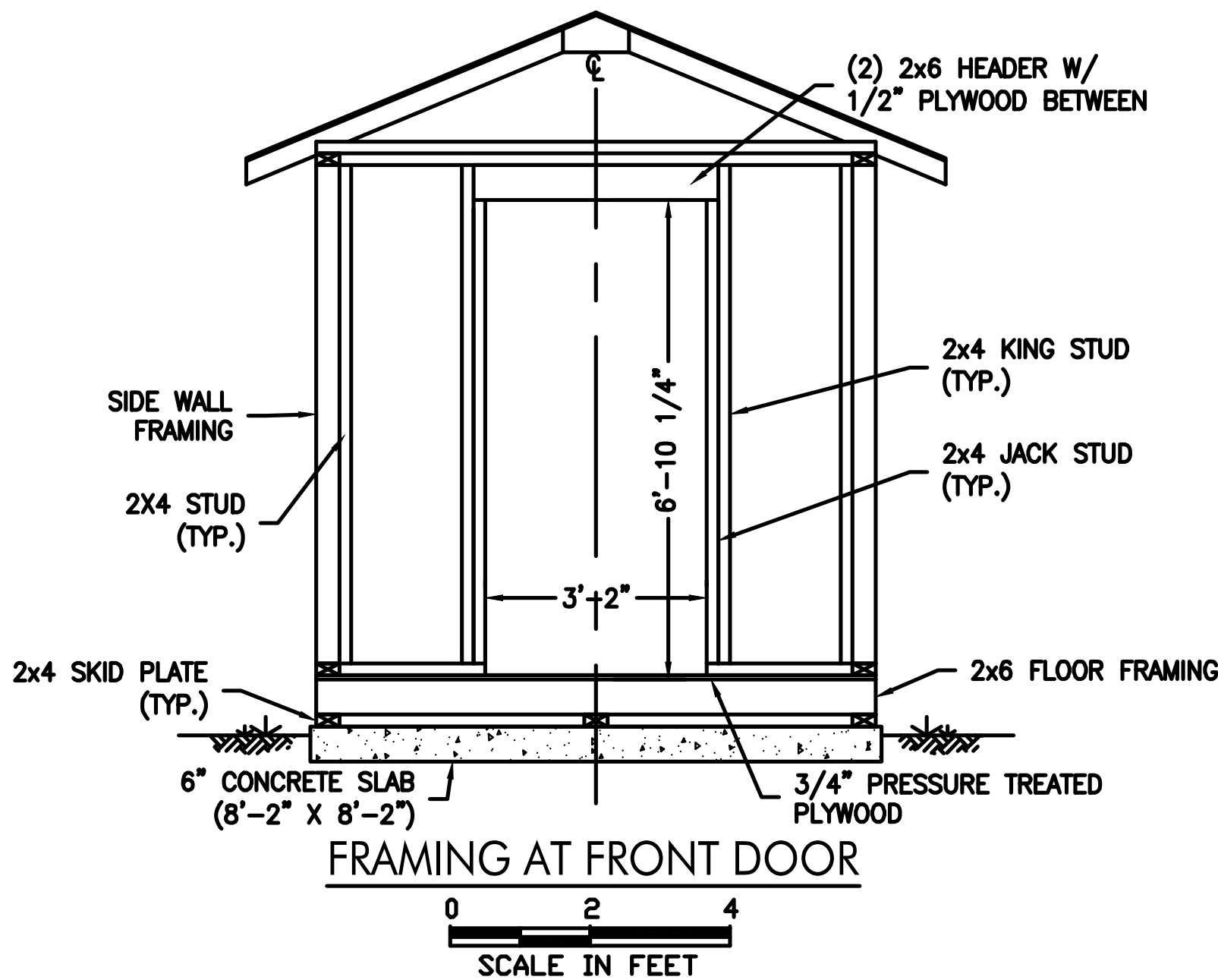
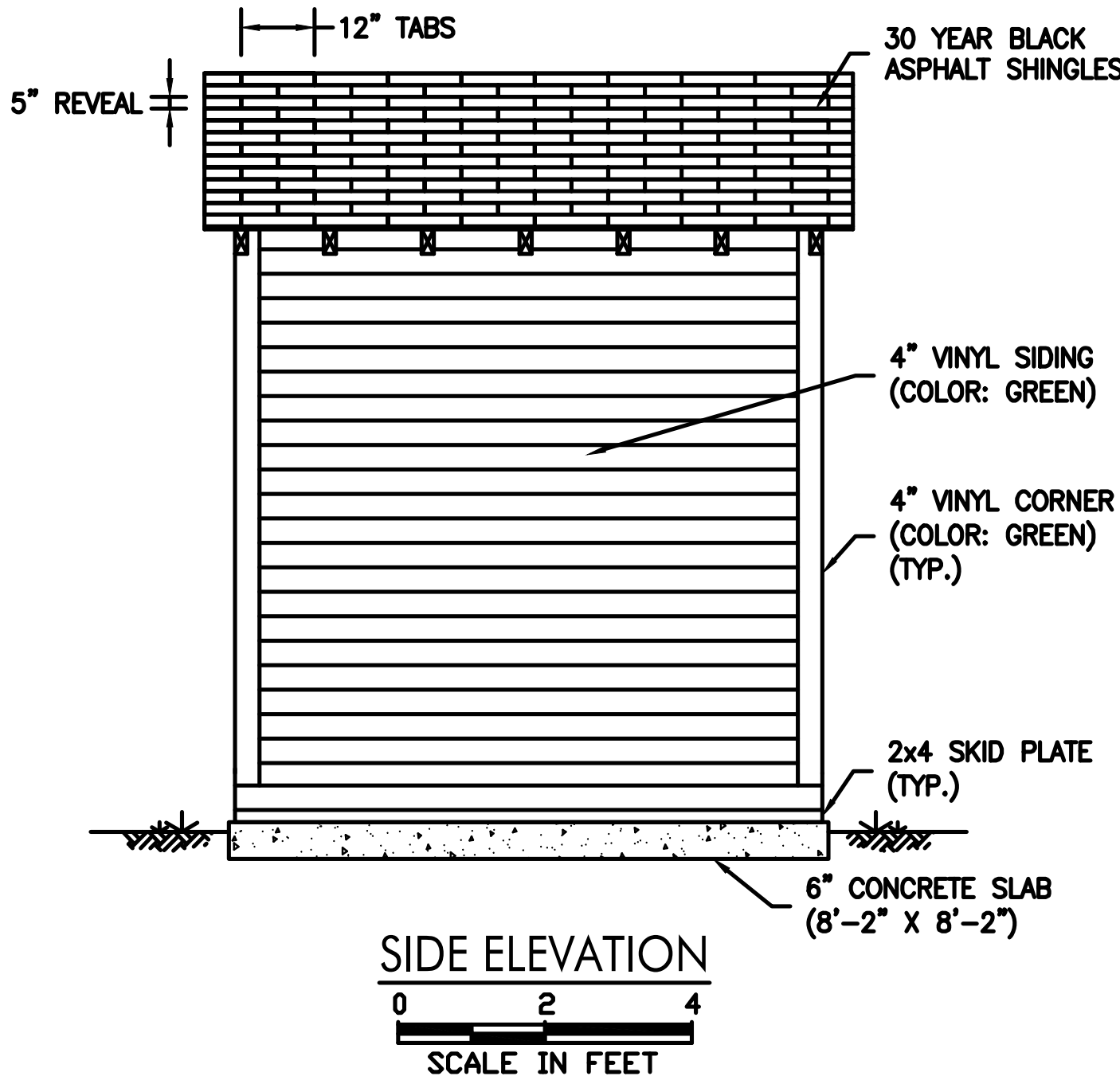
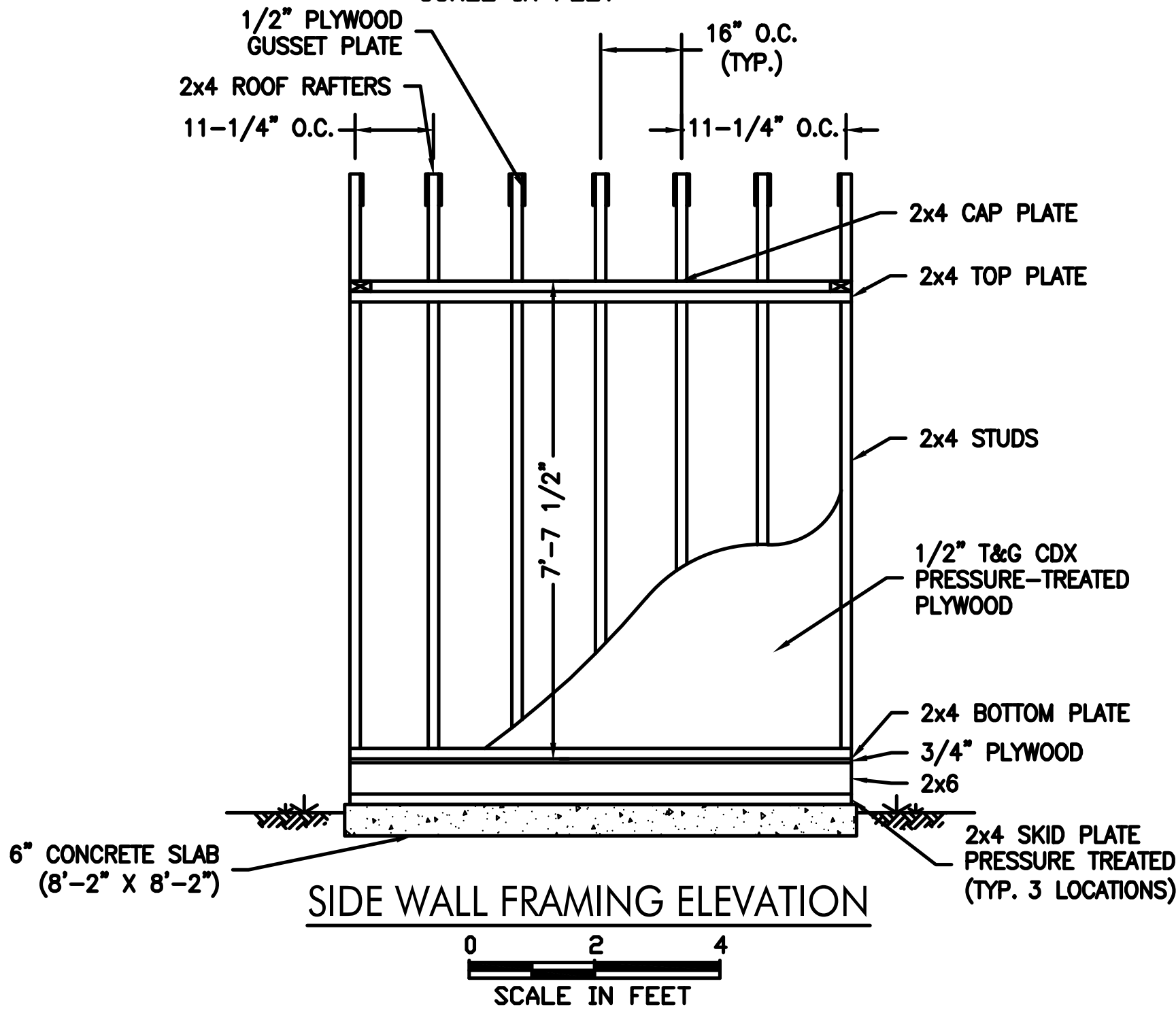
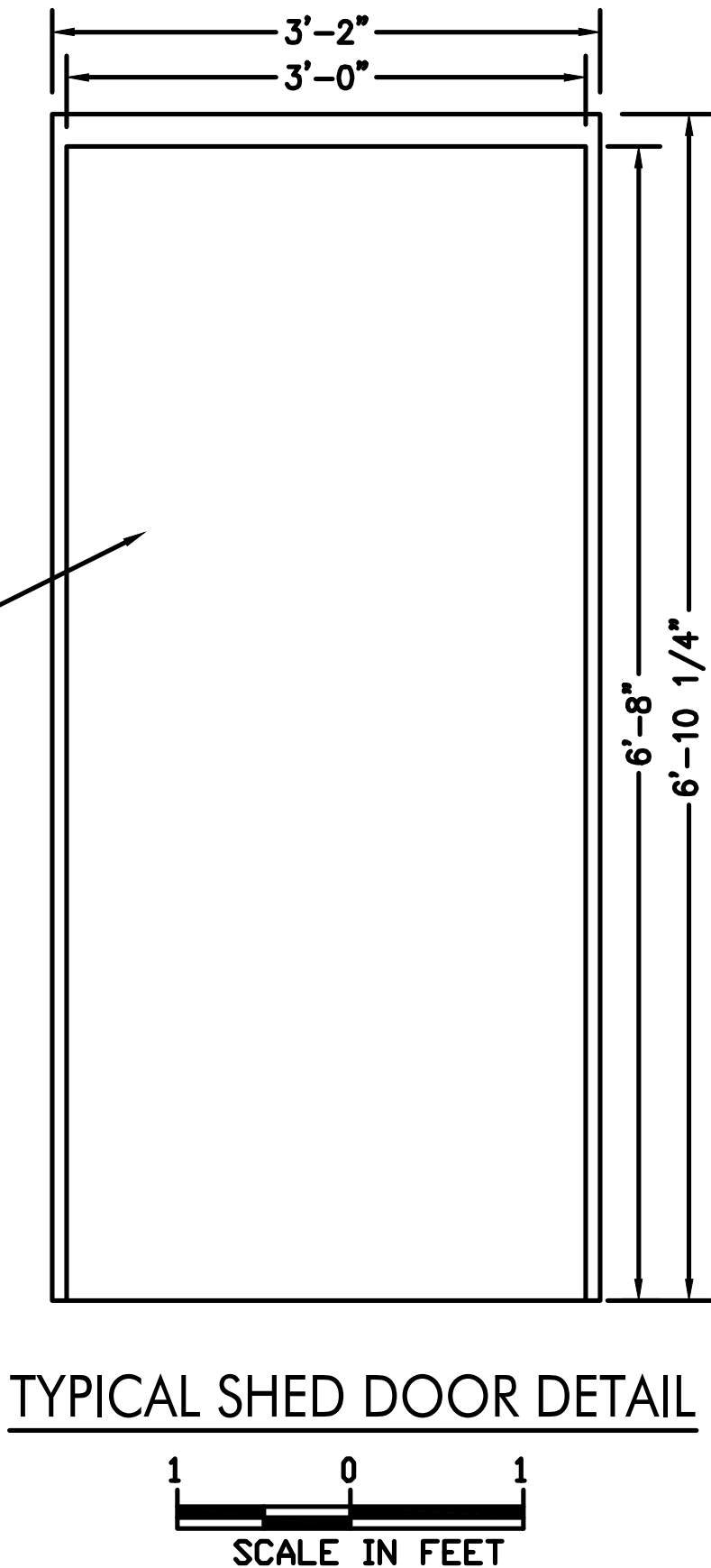
40

OF

51



PROVIDE PRE-HUNG STEEL MANDOOR WITH ALL REQUIRED HARDWARE



Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985

LiRo Engineers, Inc.

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CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER: 47673 - C

DESIGNED BY: M. GUTMANN

DRAWN BY: A. KELLY

FIELD CHECK: M. WESOLOWSKI

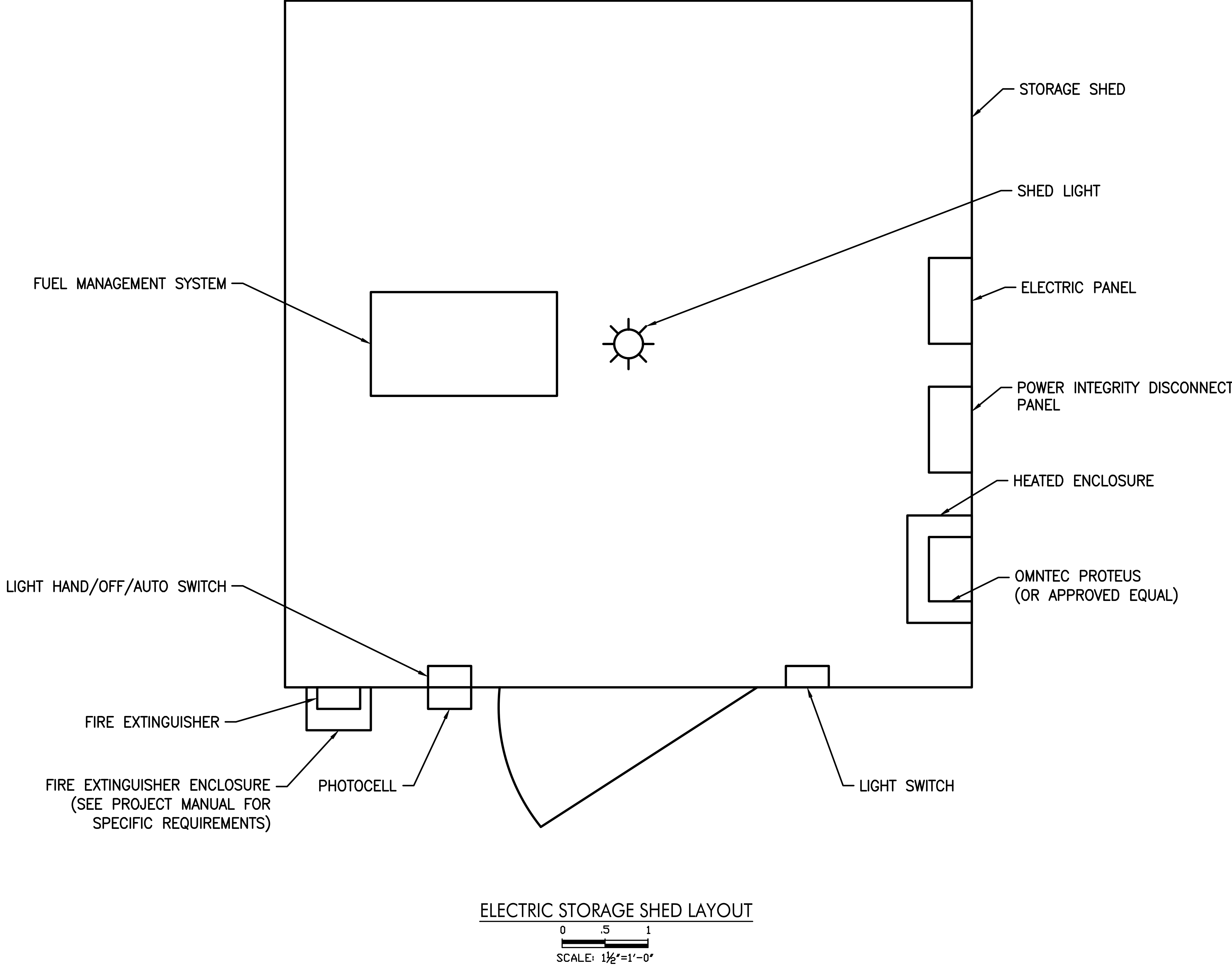
APPROVED: M. WESOLOWSKI


SHEET TITLE:

STORAGE SHED DETAILS AND ELEVATIONS

DRAWING NUMBER: C-39

SHEET 41 OF 51






Office of
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STATE OF NEW YORK
LIBRARY
PROFESSIONAL ENGINEER
REGISTRATION NO. 12345
12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

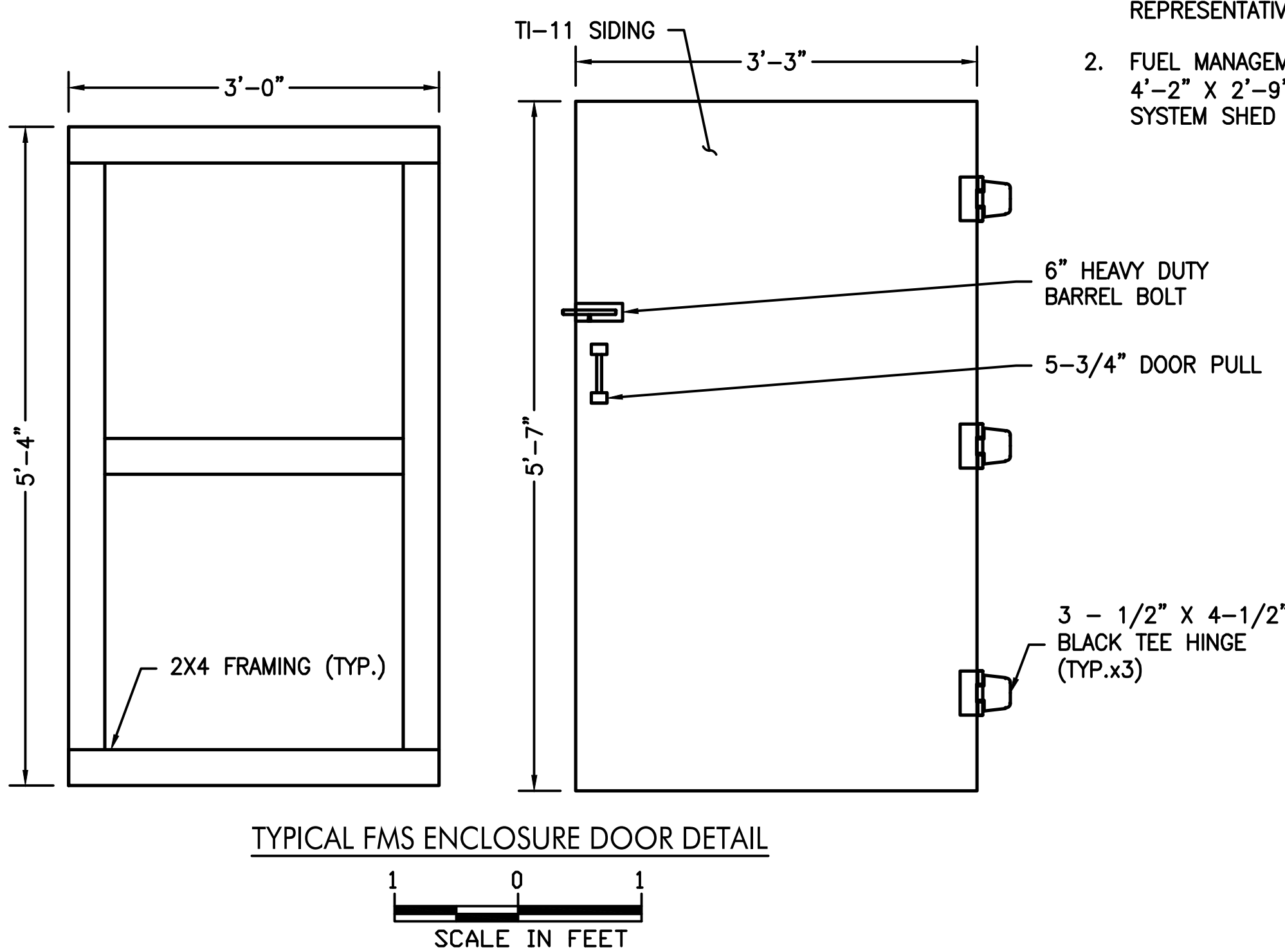
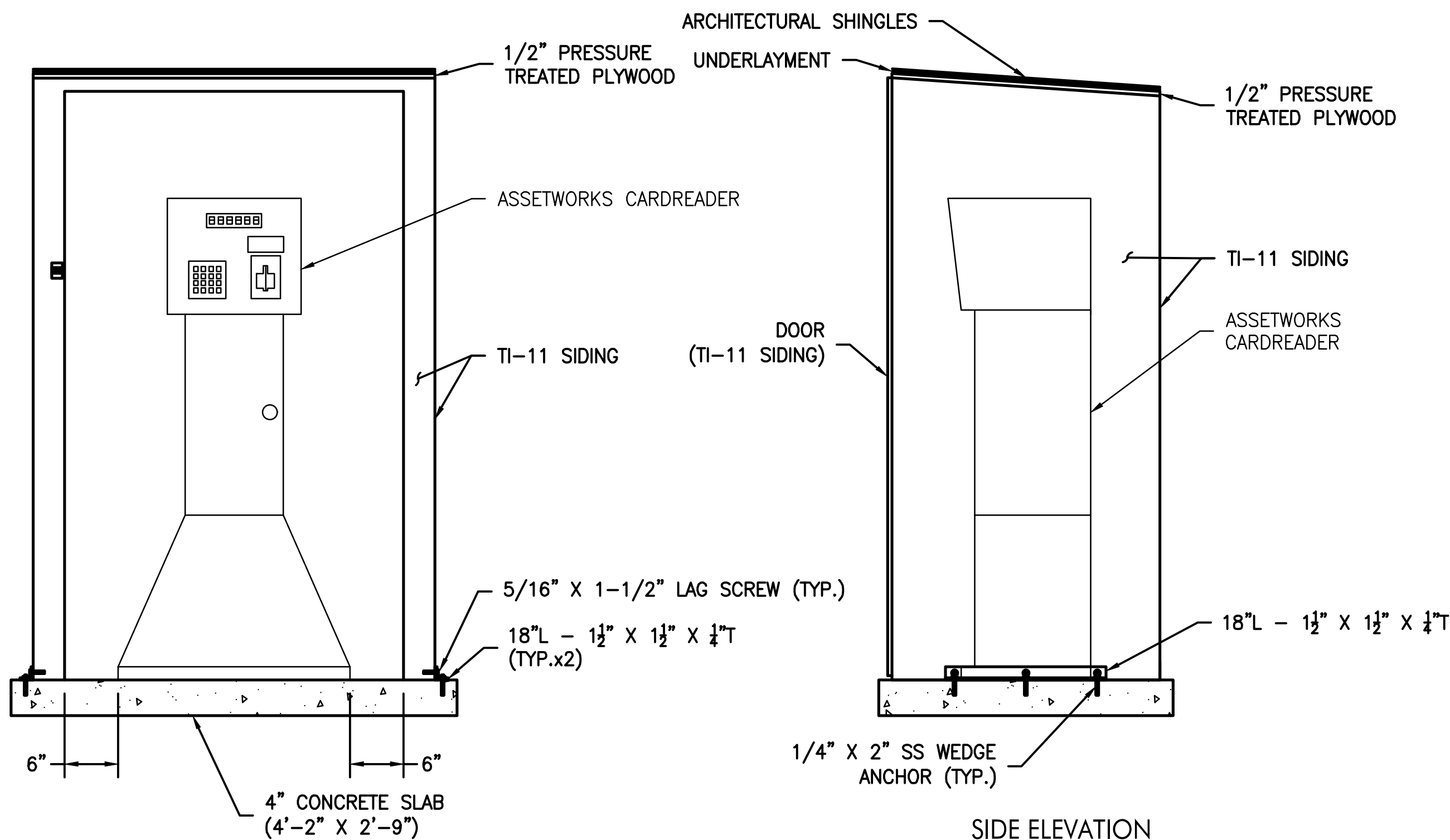
LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

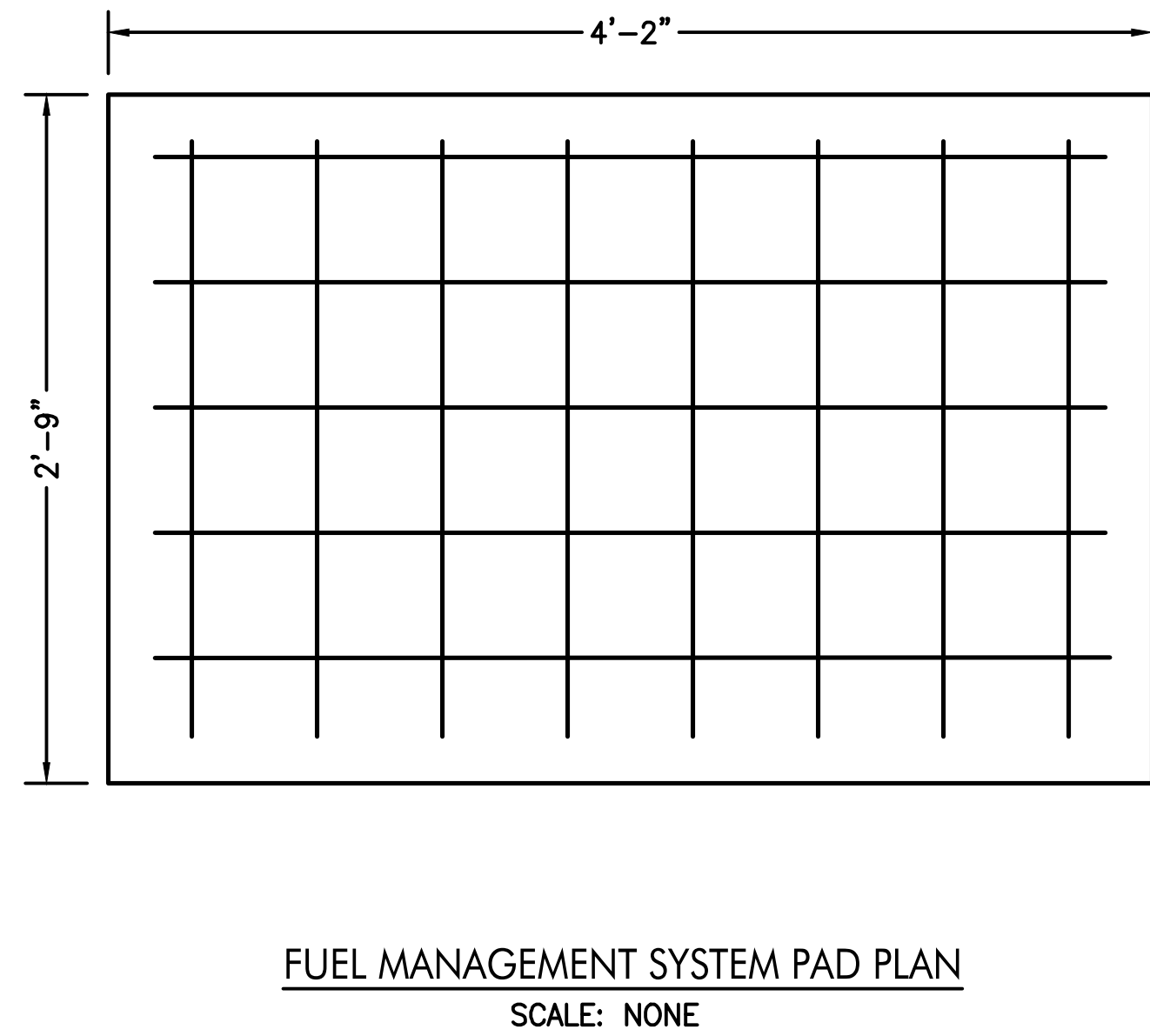
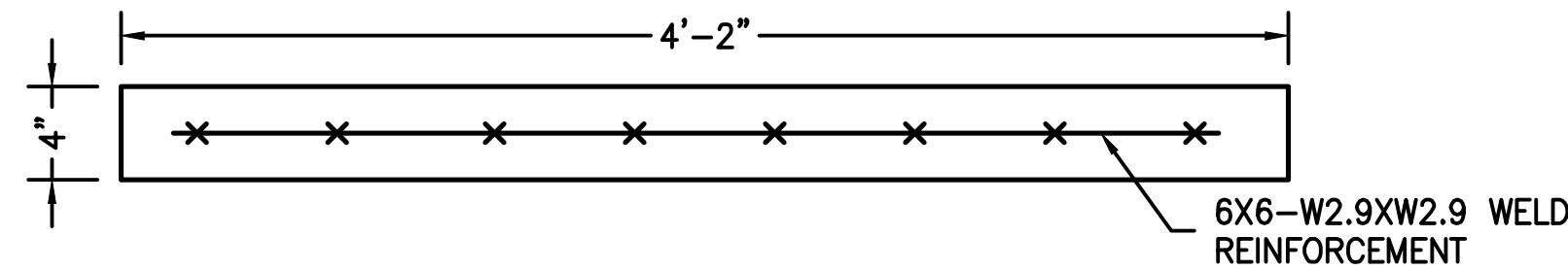
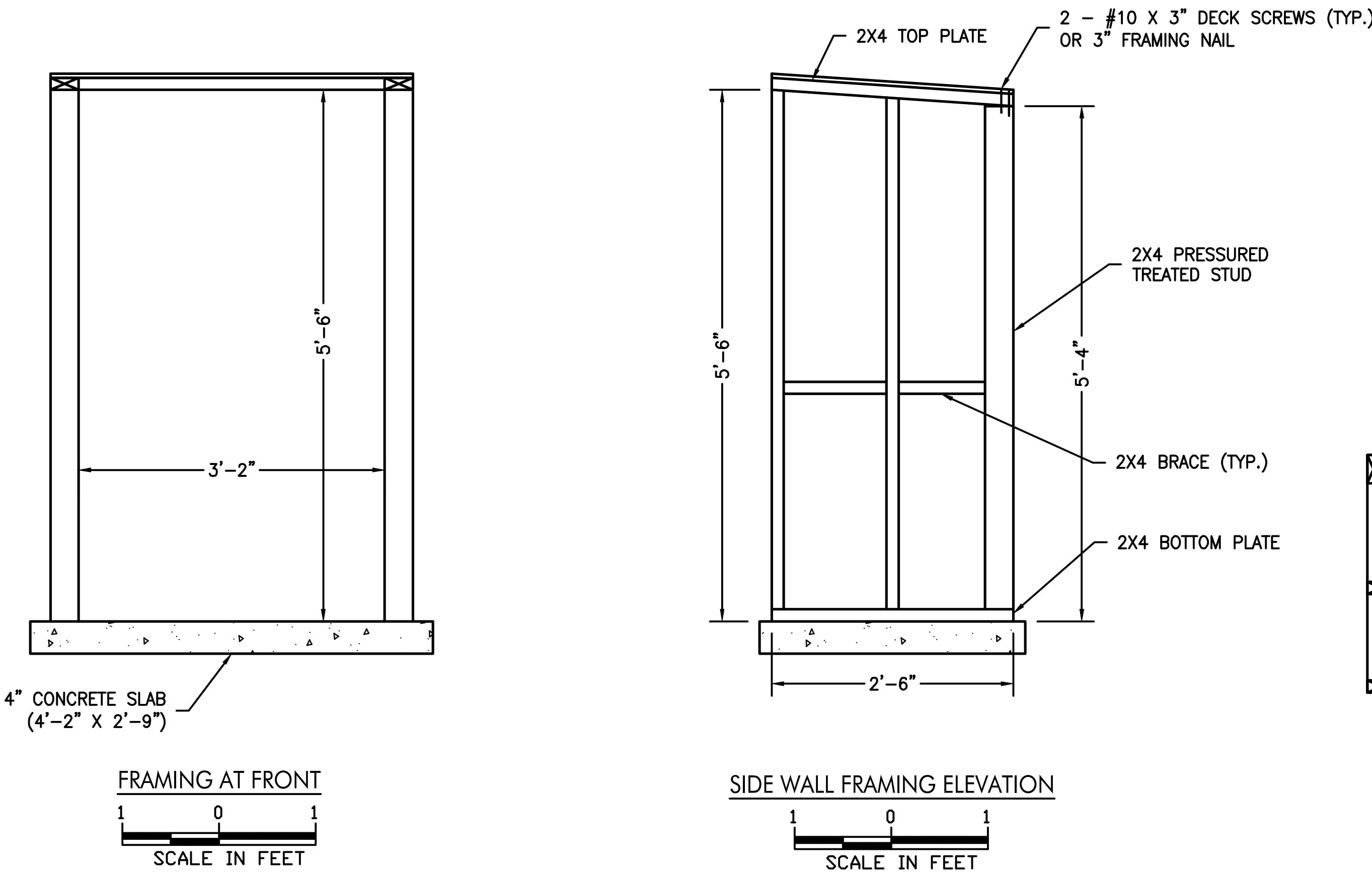
SHEET TITLE:
STORAGE SHED EQUIPMENT
LAYOUT

DRAWING NUMBER:
C-40

SHEET 42 OF 51



- NOTES:
- ENCLOSURE SHALL BE PAINTED GREEN UNLESS OTHERWISE DIRECTED BY THE OGS DIRECTOR'S REPRESENTATIVE.
 - FUEL MANAGEMENT SYSTEM PAD SHALL BE 4'-2" X 2'-9" WHEN A FUEL MANAGEMENT SYSTEM SHED IS REQUIRED.



Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017005

LiRo Engineers, Inc.
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STATE OF NEW YORK

MAKIN I. WESOLOWSKI

REGISTERED PROFESSIONAL ENGINEER

12/31/2025

CONTRACT

CONSTRUCTION

TITLE: FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION: NORTHERN REGION VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

FUEL MANAGEMENT SYSTEM ENCLOSURE DETAILS AND ELEVATIONS

DRAWING NUMBER:

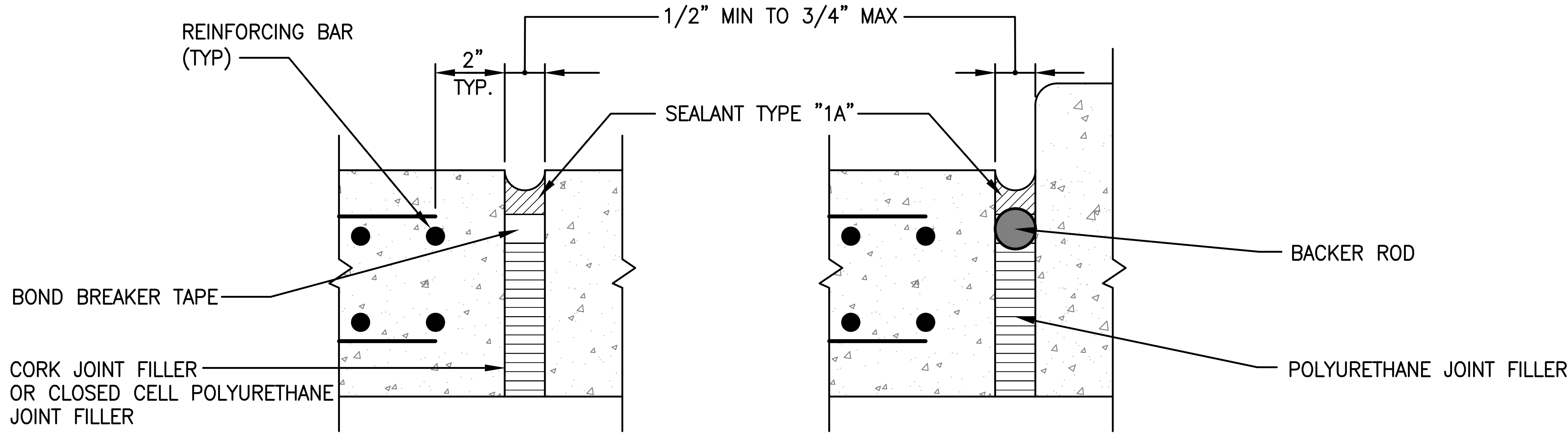
C-41

SHEET

43

OF

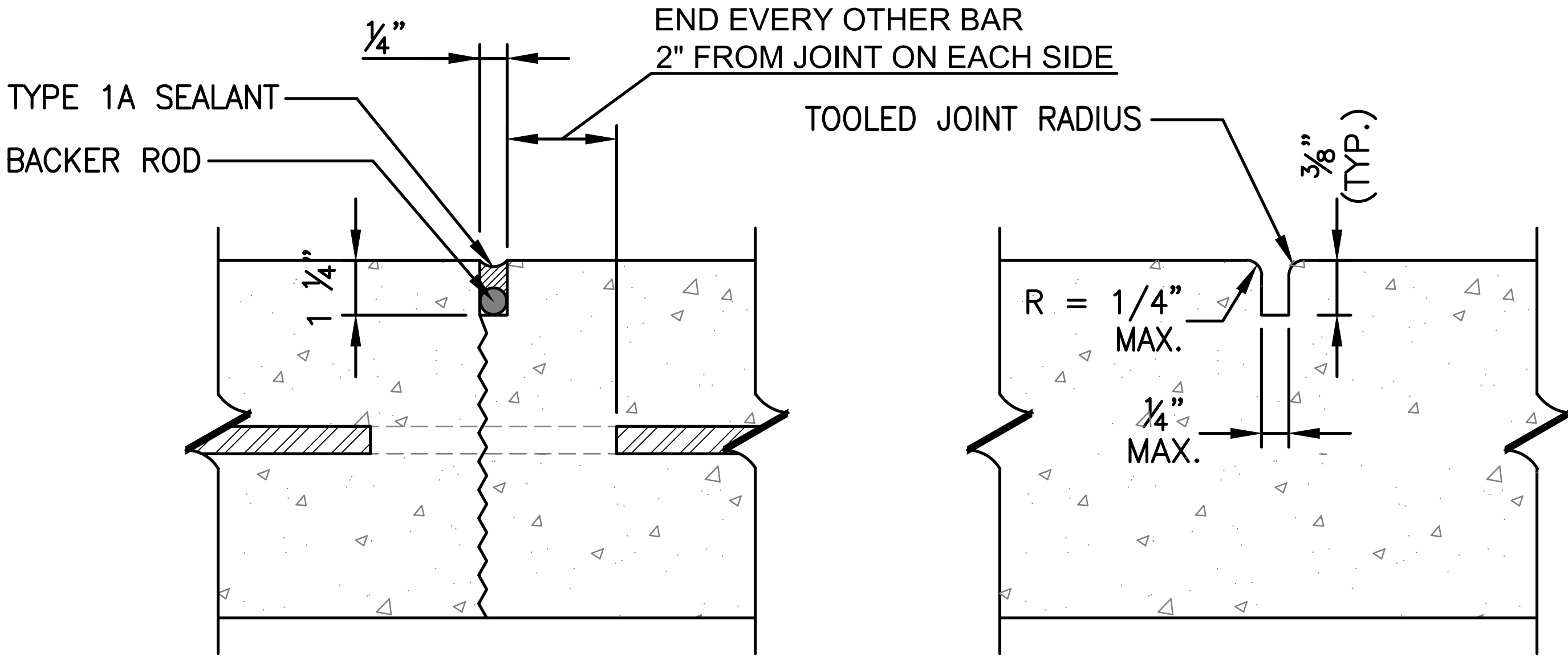
51



TYPICAL FORMED EXPANSION JOINT
SCALE: NONE

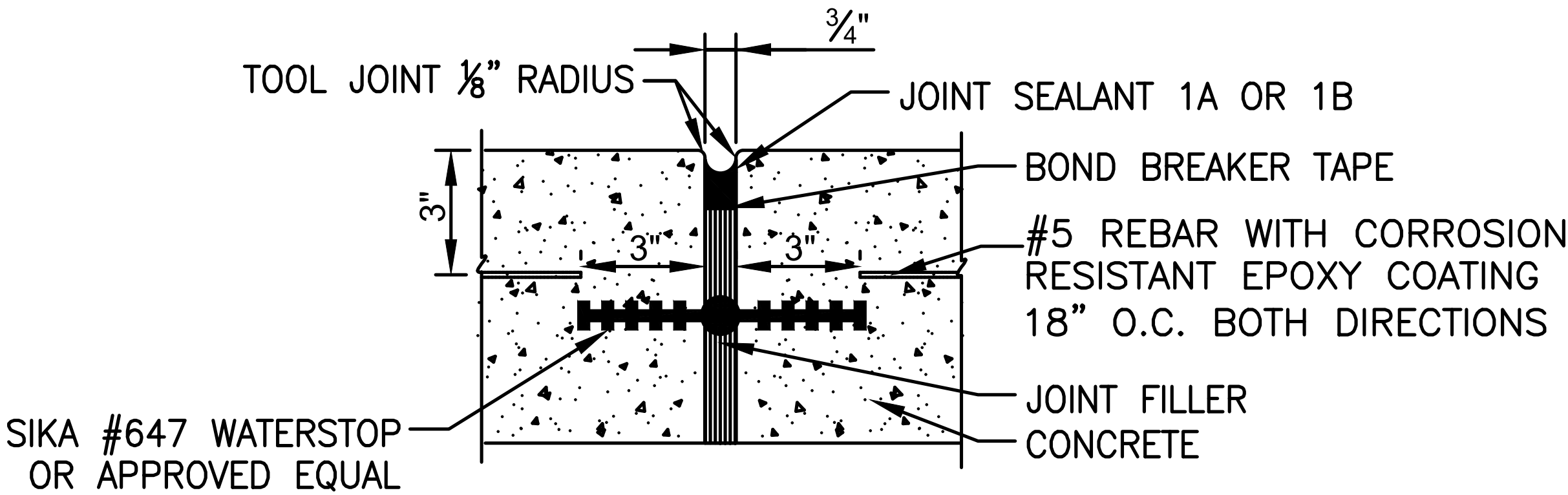
TYPICAL EXPANSION JOINT FOR IRREGULAR SURFACES
SCALE: NONE

USE THIS JOINT BETWEEN ALL TANK PADS AND VEHICLE PADS




TYPICAL CONTROL JOINT
SCALE: NONE

TYPICAL TOOLED CONTROL JOINT DETAIL
SCALE: NONE



EXPANSION JOINT WITH WATERSTOP
SCALE: NONE




Office of
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STATE OF NEW YORK
ARCHITECT
L. WESOLOWSKI
12/31/2025

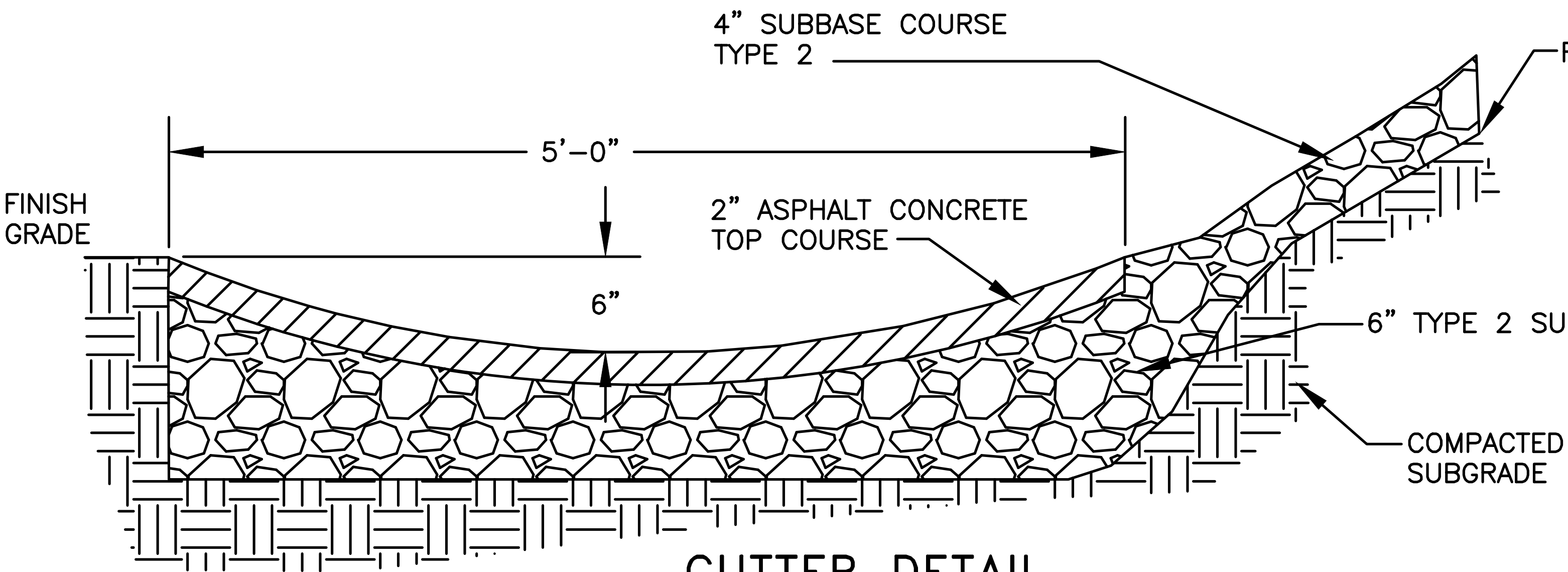
CONTRACT

CONSTRUCTION

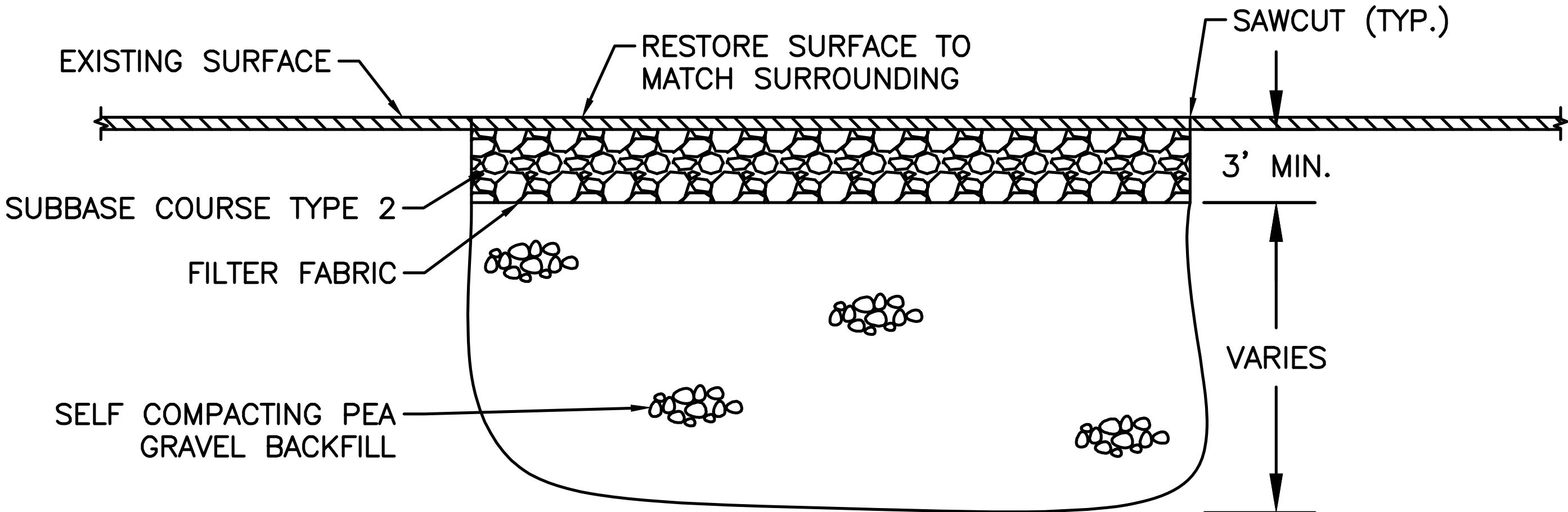
TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

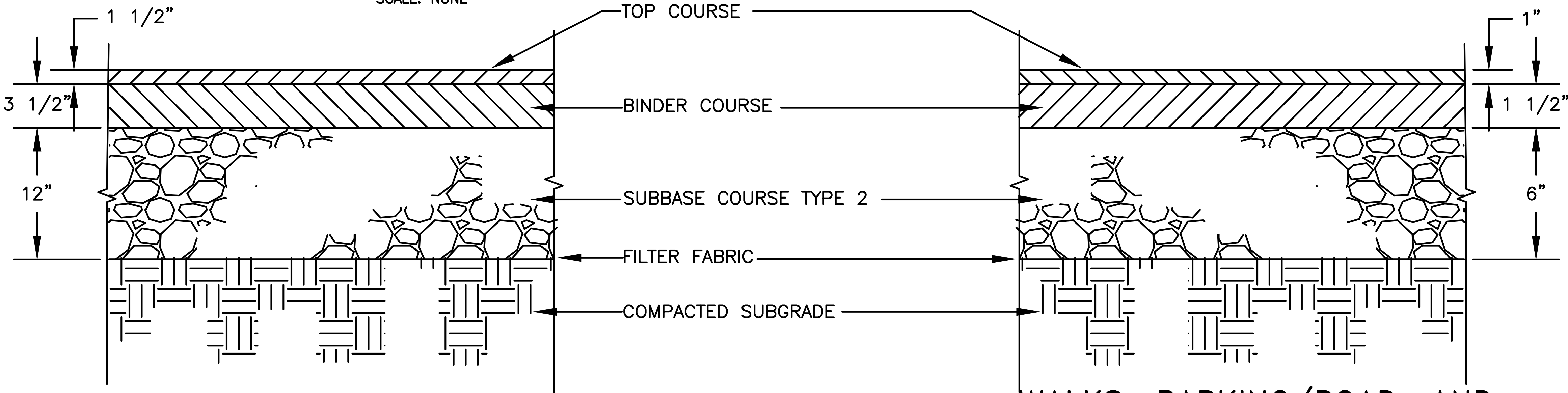
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DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
CONCRETE JOINT DETAILS		
DRAWING NUMBER:		
C-42		
SHEET 44 OF 51		



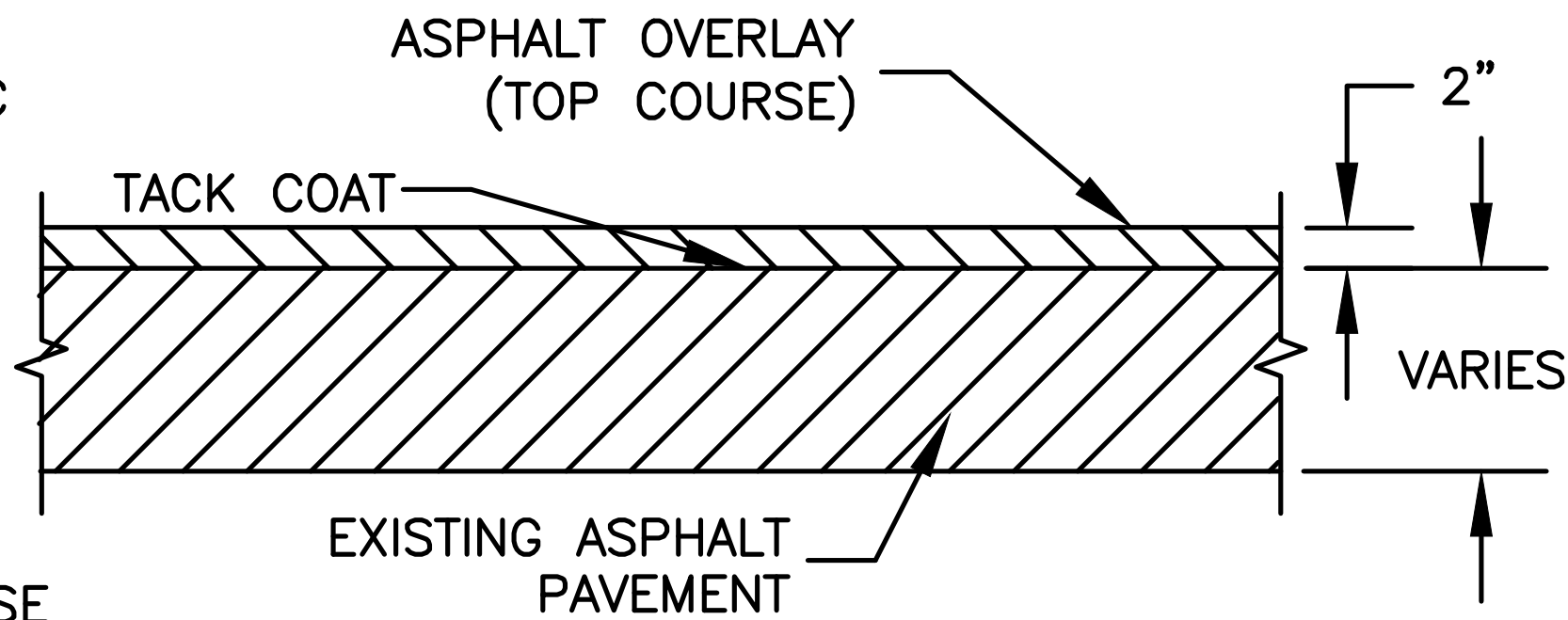
GUTTER DETAIL
SCALE: NONE



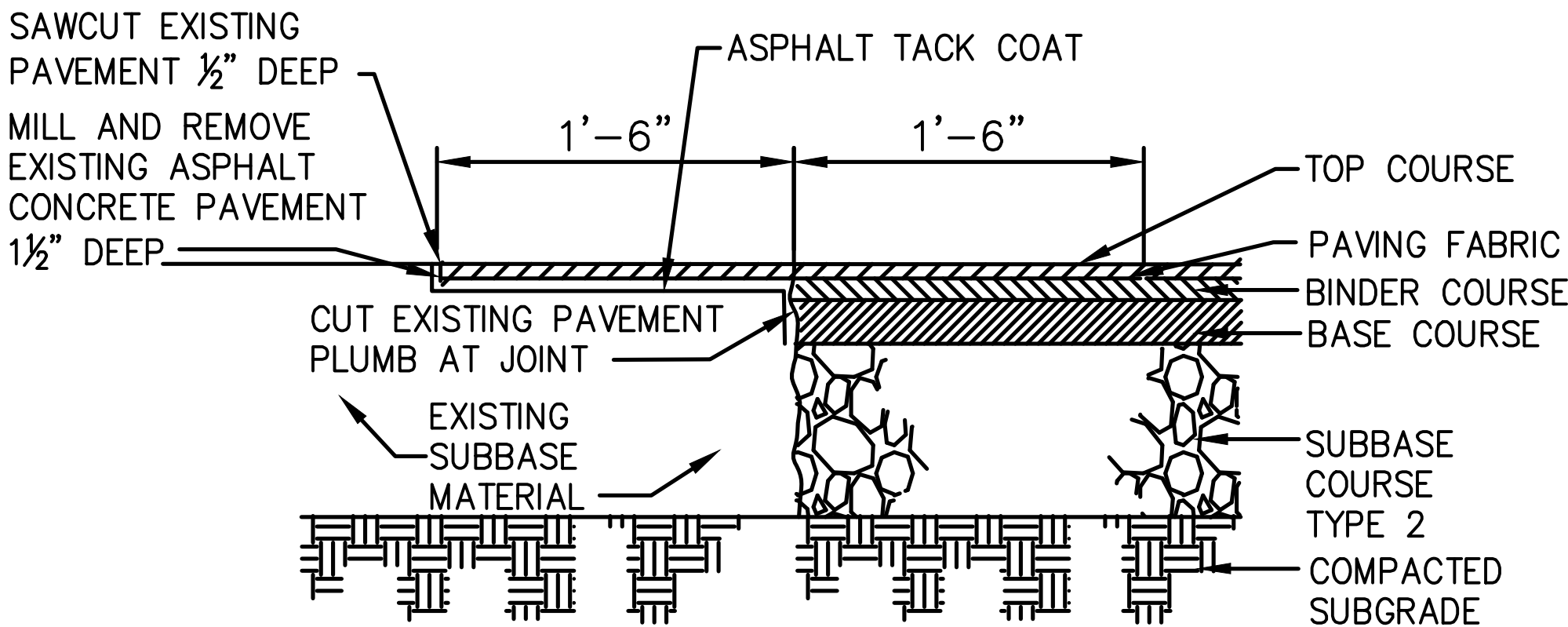
FORMER TANK EXCAVATION BACKFILL DETAIL
SCALE: NONE



PARKING/ROAD AREA (HEAVY DUTY)
SCALE: NONE



ASPHALT PAVEMENT OVERLAY DETAIL
SCALE: NONE



ASPHALT TRANSITION DETAIL
SCALE: NONE

WALKS, PARKING/ROAD, AND
PLAY AREAS (LIGHT DUTY)
SCALE: NONE

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STATE OF NEW YORK
LIBERTY & JUSTICE UNDER
LAW
REGISTERED PROFESSIONAL ENGINEER
EXPIRATION DATE: 12/31/2026

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION

PROJECT NUMBER:

47673 - C

DESIGNED BY:

M. GUTMANN

DRAWN BY:

A. KELLY

FIELD CHECK:

M. WESOLOWSKI

APPROVED:

M. WESOLOWSKI

SHEET TITLE:

ASPHALT CONCRETE
PAVEMENT &
EXCAVATION BACKFILL
DETAILS

DRAWING NUMBER:

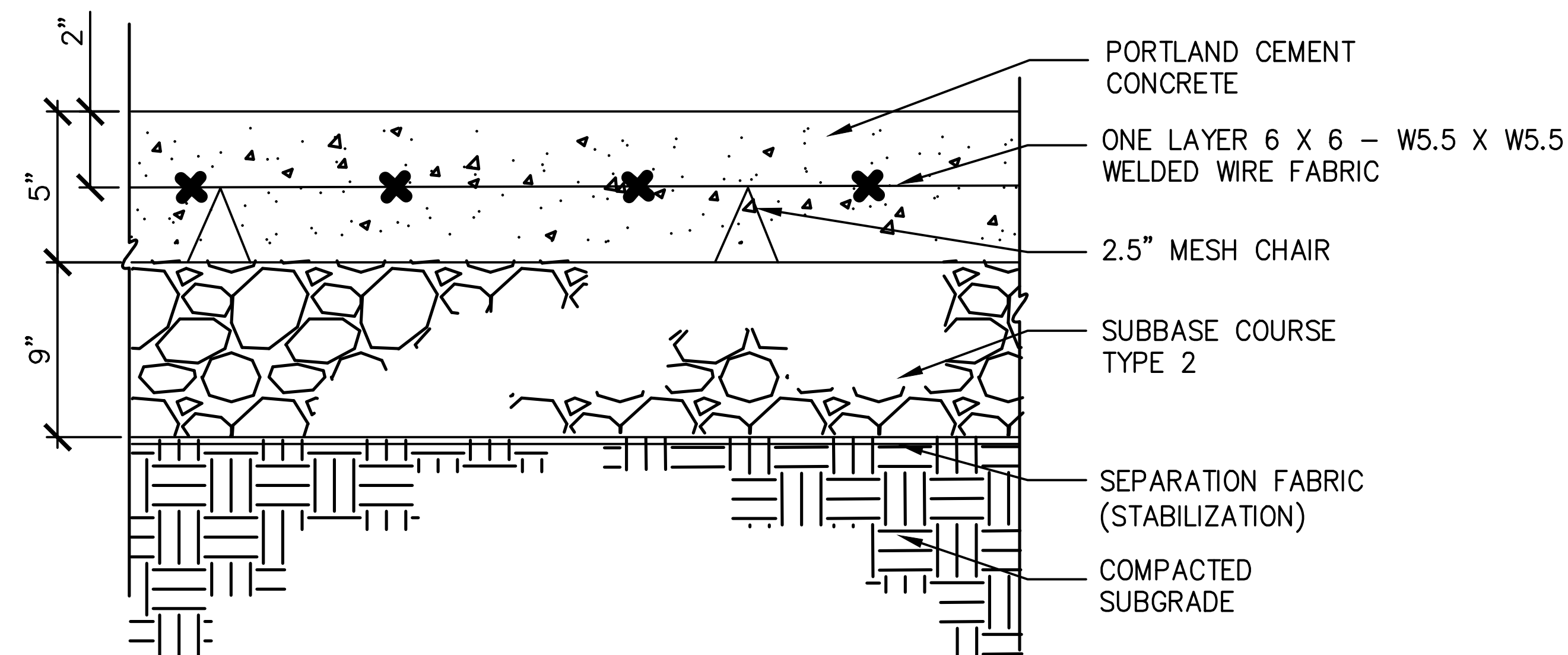
C-43

SHEET

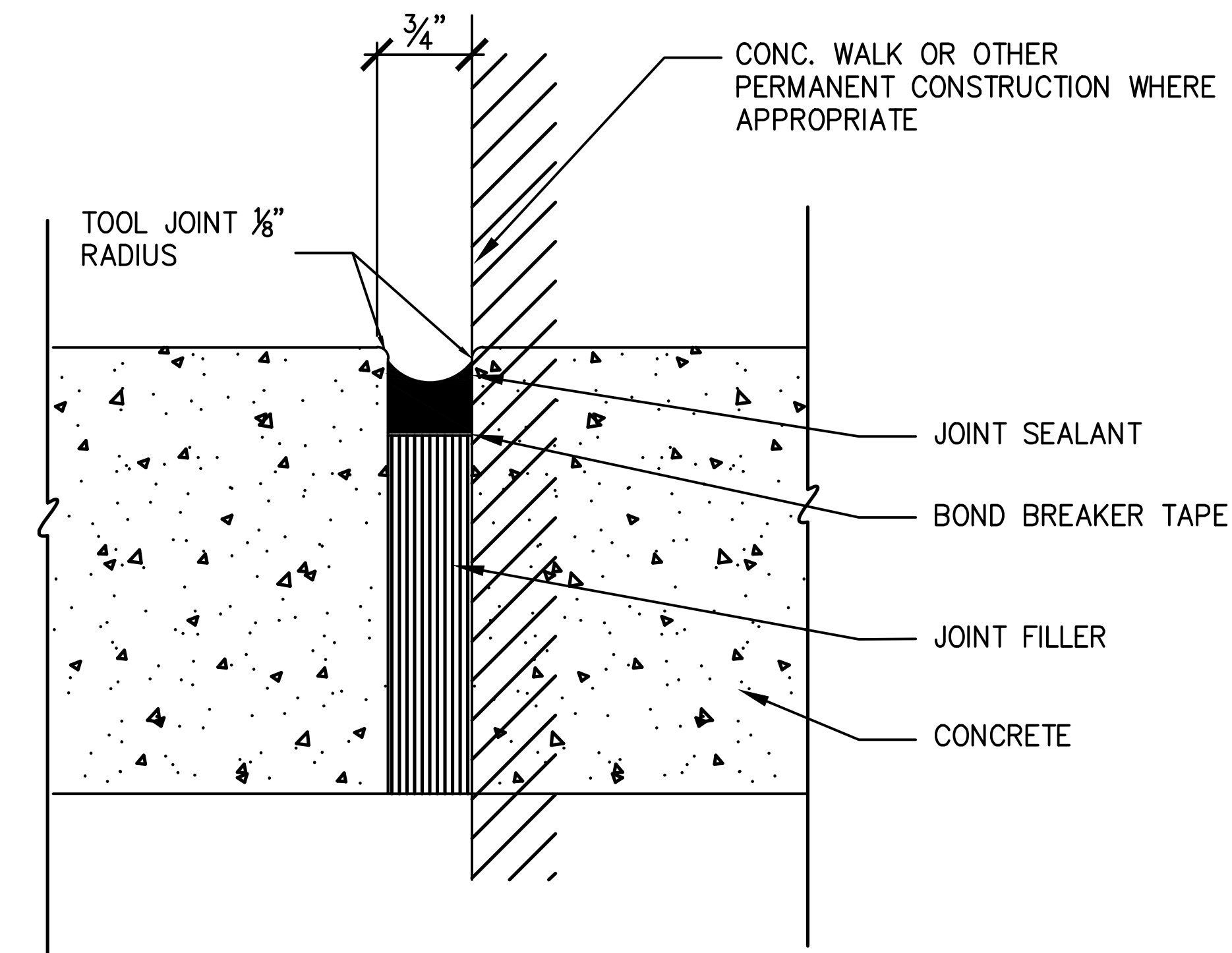
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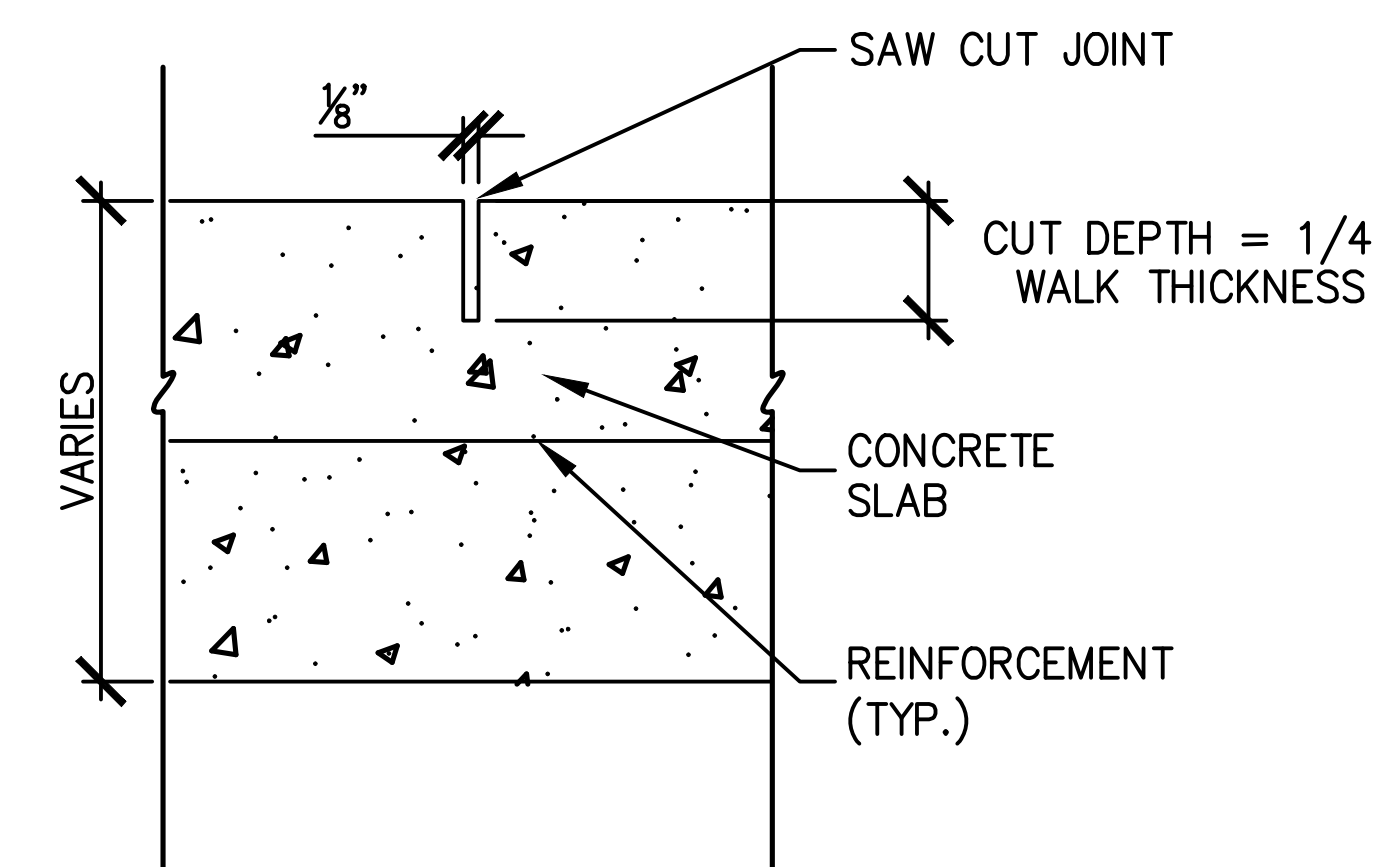
51



CONCRETE WALK – WWF REINFORCED



EXPANSION JOINT

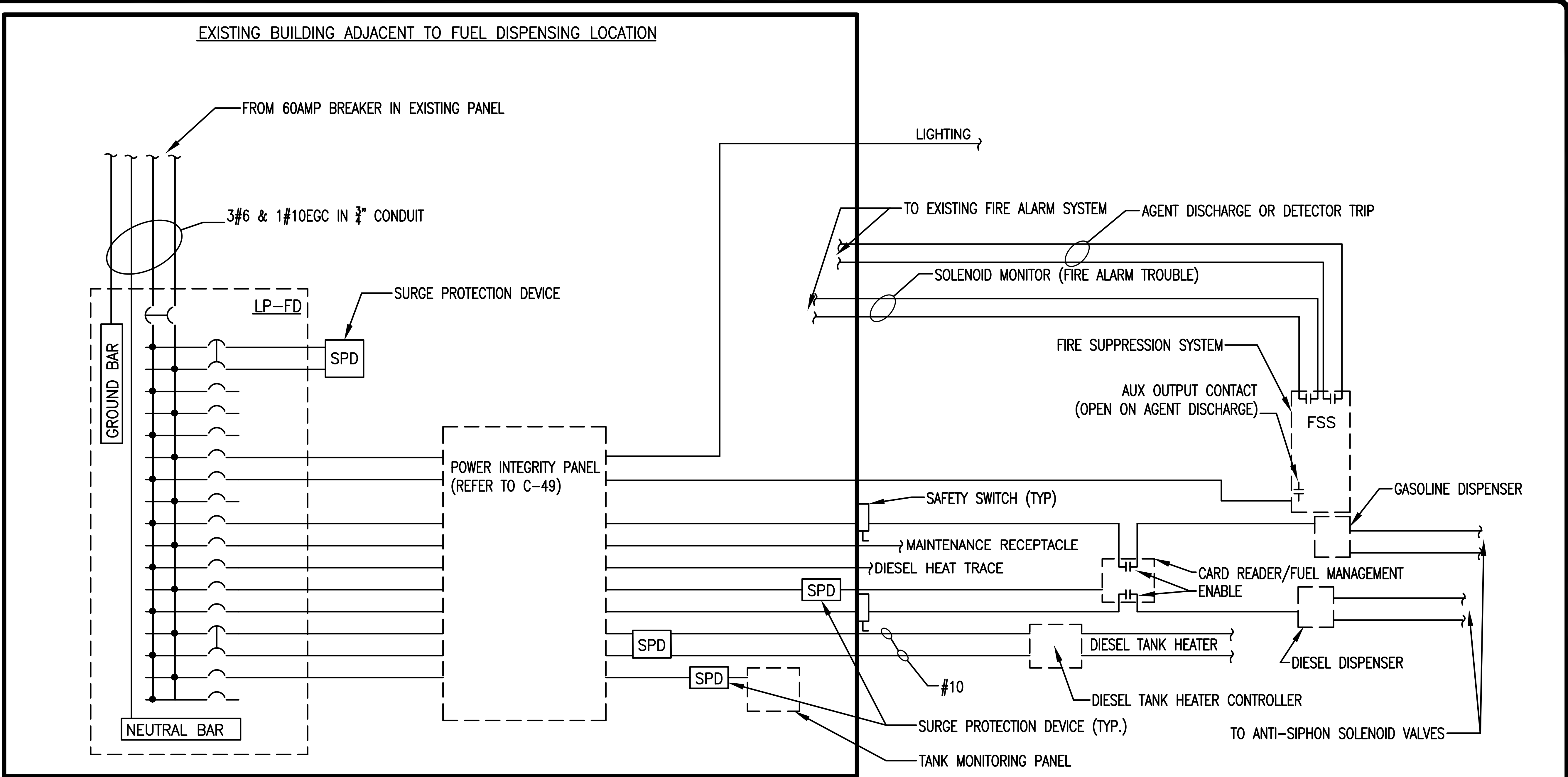


SAWED CONTROL JOINT

NOTES:

1. PROVIDE EXPANSION JOINT WHERE THE ASPHALT SIDEWALK ABUTS THE CONCRETE SLAB FOR THE FUEL TANK AND AT THE CHANGE IN DIRECTION AND EVERY 50'.
2. VERTICAL EXPANSION JOINTS:
 - W.R. MEADOWS, INC. ASPHALT FIBRE EXPANSION JOINT, OR APPROVED EQUAL.
 - W.R. MEADOWS SNAP-CAP EXPANSION JOINT CAP (KEEPS THE FIBRE BOARD CLEAN DURING CONCRETE PLACEMENT), OR APPROVED EQUAL.
 - 3M BOND BREAKER TAPE OR APPROVED EQUAL.
 - A SINGLE COMPONENT, SELF-LEVELING, NON-SAG POLYURETHANE SEALANT - SIKAFLEX-1C SL OR APPROVED EQUAL.
3. EDGES AND EXPANSION JOINTS SHOULD TROWELED WITH A RADIUS EDGE.
4. SAW CONTROL JOINTS (CJ) AFTER THE CONCRETE HAS SET. COMPLETE SAWCUTS WITHIN 18 HOURS AFTER SLAB IS PLACED. SPACE CONTROL JOINTS EQUALLY BETWEEN EXPANSION JOINTS AT APPROXIMATELY 5'-0" ON CENTER OR MATCH EXISTING WALKS IN AREA, EXCEPT WHERE A DIFFERENT SPACING IS SHOWN ON THE DRAWINGS.
5. APPLY CURING IMMEDIATELY AFTER FINAL FINISH. KURE-N-SEAL OR APPROVED EQUAL.
6. CONCRETE SIDEWALK SHALL HAVE A BROOM FINISH.

NEW YORK STATE OF EMPLOYMENT		
Office of General Services		
DESIGN & CONSTRUCTION		
CONSULTANT		
CERTIFICATE OF AUTHORIZATION #: 0017995		
<div style="float: left; width: 150px; height: auto;"></div> <div style="margin-left: 10px;">LiRo Engineers, Inc. <small>3 Aerial Way, Syosset, New York</small></div>		
ENGINEER / LANDSCAPE ARCHITECT		
CONTRACT NO.		
PROJECT TITLE:		
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CONTRACT #		
CONSTRUCTION		
TITLE:		
FUEL TANK MODIFICATION AND ENVIRONMENTAL REMEDIATION PROGRAM		
LOCATION:		
NORTHERN REGION VARIOUS FACILITIES		
MARK		
DATE		
DESCRIPTION		
PROJECT NUMBER:		
47673 — C		
DESIGNED BY:		
M. GUTHMANN		
DRAWN BY:		
A. KELLY		
FIELD CHECK:		
M. WESOLOWSKI		
APPROVED:		
M. WESOLOWSKI		
SHEET TITLE:		
SIDEWALK AND EXPANSION JOINT DETAIL		
DRAWING NUMBER:		
C—44		
SHEET		
46 OF 51		



GENERAL NOTES:

- (THIS DRAWING ONLY)

A. CONDUIT LAYOUT IS SHOWN DIAGRAMMATICALLY. CONDUITS SHALL BE CONSOLIDATED TO REDUCE THE NUMBER OF CONDUITS REQUIRED ON A SITE BY SITE BASIS. CONTRACTOR SHALL SUBMIT CONDUIT CONSOLIDATION PLAN AS A FIELD SUBMITTAL ON ELECTRIC SUBMITTAL PLATFORM.

B. PROVIDE A 2 POLE 60 AMPERE TRIP ELEMENT BREAKER IN AN EXISTING PANEL AS DIRECTED. OR IF SUFFICIENT SPACE EXISTS IN AN EXISTING BREAKER, PROVIDE BRANCH BREAKERS IN THAT PANEL AS DIRECTED.

C. GROUNDING CONDUCTORS ARE TO BE PROVIDED IN ALL CONDUITS REGARDLESS OF WHAT IS DEPICTED ON THIS DIAGRAM.

D. PROVIDE ALL WIRING IN CONDUIT. CONDUITS PENETRATING SLABS OR AREAS EXPOSED TO SALT SHALL BE PVC-COATED RIGID METAL CONDUIT. PVC-COATED CONDUIT SHALL EXTEND FROM BENEATH SLAB TO 2 FEET ABOVE SLAB.
- E. THE MAINTENANCE RECEPTACLE CONDUCTORS SHALL NOT BE ROUTED THROUGH THE CONTACTOR.

F. MOUNT THE PHOTOCELL ON THE EXTERIOR OF THE BUILDING AT APPROXIMATELY 10 FEET ABOVE GRADE AS DIRECTED.

G. MOUNT SAFETY SWITCHES OUTDOORS, IN SIGHT OF THE DISPENSING LOCATION, OUTSIDE OF THE HAZARDOUS AREA, AS DIRECTED. BREAK NEUTRAL CONDUCTORS IN SAFETY SWITCHES AS WELL.

H. COMPONENTS SHOWN ON THE DIAGRAM ARE TYPICAL, NOT ALL INSTALLATIONS WILL REQUIRE ALL OF THE COMPONENTS SHOWN.
- I. PROVIDE THE NUMBER OF CONTACTORS AS REQUIRED TO OPEN ALL LINE AND NEUTRAL CONDUCTORS SHOWN ON THE DIAGRAM.

J. THE EMERGENCY POWER SWITCH SHALL BE LOCATED A MINIMUM OF 20 FEET FROM ALL DISPENSERS AND A MAXIMUM OF 100 FEET FROM ALL DISPENSERS AS DIRECTED.


K. SEALING FITTINGS ARE NOT SHOWN. PROVIDE SEALING FITTINGS AT LOCATIONS INDICATED BY AND DEPICTED IN ARTICLES: 500, 501, 511, 514 AND 515 OF THE 2014 NEC.
- L. ABOVE GROUND TANKS: UNLESS SPECIFIED BY THE TANK MANUFACTURER, PROVIDE A GROUND ROD FOR EACH TANK WITH A MINIMUM OF A #2 GROUNDING CONDUCTOR BETWEEN THE TANK AND THE ROD.

M. ALL COMPLETED RACEWAY SYSTEMS SHALL BE INSPECTED AND APPROVED PRIOR TO CONDUCTORS BEING INSTALLED.

N. MINIMUM CONDUCTOR SIZE #12 UNLESS OTHERWISE NOTED.

O. LOCATE THE MAINTENANCE RECEPTACLE AS DIRECTED OUTSIDE OF THE HAZARDOUS AREA.

P. SURGE PROTECTION DEVICE SHALL BE PROVIDED FOR INDIVIDUAL EQUIPMENT. THE USE OF A BRANCH PANEL BOARD SUPPRESSOR IN PLACE OF INDIVIDUAL EQUIPMENT SURGE PROTECTION DEVICES SHALL BE DETERMINED ON A SITE BY SITE BASIS.




NEW YORK
STATE
OF
ENGINEERING

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017985



LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

ENERGY CONSERVATION CONSTRUCTION
CODE OF NEW YORK STATE:

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STATE OF NEW YORK
LIBERTY & JUSTICE UNDER
LAW

REGISTERED PROFESSIONAL ENGINEER
12/31/2025

CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

POWER ONE LINE
DIAGRAM

DRAWING NUMBER:

C-45

SHEET

47

OF

51

GENERAL NOTES:

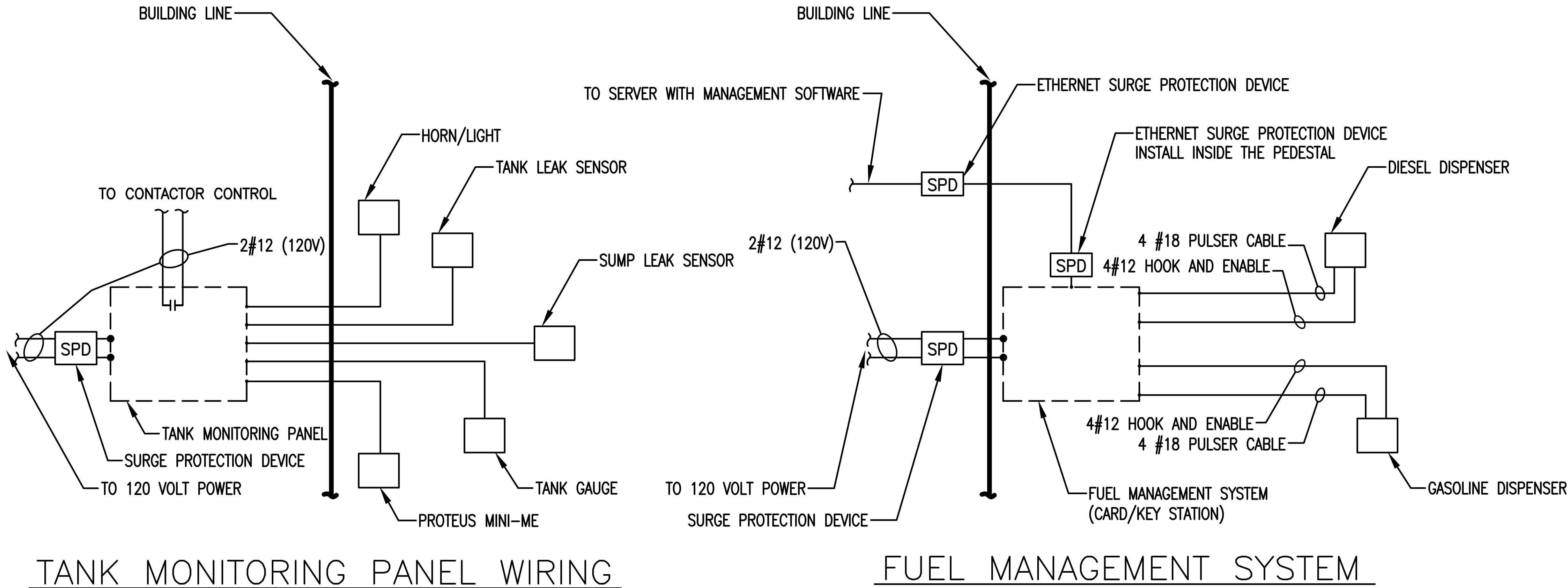
(THIS DRAWING ONLY)

- A. WIRING FOR EQUIPMENT CONNECTED TANK MONITORING PANEL IS UNDER 120 VOLTS UNLESS OTHERWISE NOTED. WIRING OTHER THAN 120 VOLTS MAY BE COMBINED IN COMMON CONDUITS.
- B. WIRING FOR DEVICES CONNECTED TO THE TANK MONITORING PANEL IS A MINIMUM OF #22 UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER.
- C. SEALING FITTINGS ARE NOT SHOWN. PROVIDE SEALING FITTINGS AT LOCATIONS INDICATED BY AND DEPICTED IN ARTICLES: 500, 501, 511, 514, AND 515 OF THE 2014 NEC.
- D. PROVIDE ALL WIRING IN CONDUIT. CONDUITS PENETRATING SLABS OR AREAS EXPOSED TO SALT SHALL BE PVC-COATED RIGID METAL CONDUIT. PVC-COATED CONDUIT SHALL EXTEND FROM BENEATH SLAB TO 2 FEET ABOVE SLAB.
- E. PULSER AND POWER CABLES SHALL NOT BE COMBINED IN COMMON RACEWAYS.
- F. CIRCUITS FROM TANK MONITORING PANEL OUTSIDE TO THE TANK LOCATION ARE INTRINSICALLY SAFE AND NEED TO BE RUN IN CONDUITS SEPARATE FROM ANY NON-INTRINSICALLY SAFE CIRCUITS.
- G. SURGE PROTECTION DEVICE SHALL BE PROVIDED FOR INDIVIDUAL EQUIPMENT. THE USE OF A BRANCH PANEL BOARD SUPPRESSOR IN PLACE OF INDIVIDUAL EQUIPMENT SURGE PROTECTION DEVICES SHALL BE DETERMINED ON A SITE BY SITE BASIS.

PANELBOARD SCHEDULE

DESIGNATION: <u>LP-FD</u>	<input checked="" type="checkbox"/> FULLY RATED EQUIPMENT RATING IS REQUIRED FOR THIS PANELBOARD	PANELBOARD SHORT CIRCUIT RATING <u>10,000</u> RMS SYMMETRICAL AMPERES						
CABINET NEMA TYPE: 1 <input checked="" type="checkbox"/> 3R <input type="checkbox"/> 4 <input type="checkbox"/> 4X <input type="checkbox"/> 12 <input type="checkbox"/>	<input type="checkbox"/> UL LISTED INTEGRATED EQUIPMENT SHORT CIRCUIT RATING IS ACCEPTABLE FOR THIS PANELBOARD	MAIN LUG ONLY <input type="checkbox"/>						
		MAIN CIRCUIT BREAKER <input checked="" type="checkbox"/>						
MOUNTING: <u>SURFACE</u>	<input type="checkbox"/> UL LABEL 'SUITABLE FOR USE AS SERVICE EQUIPMENT'	FRAME	POLES	ATE	COMPONENTS (SEE BELOW)			
		100	26	60	-			
MAIN: <u>100</u>	BRANCH/FEEDER CIRCUIT BREAKERS							
VOLTAGE: <u>120/208</u> OR 240	DESCRIPTION	ATE	NO.	A	B	NO.	ATE	DESCRIPTION
PHASE: <u>SINGLE</u>	GASOLINE DISPENSER	20	1			2	20	DIESEL DISPENSER
NO. WIRES: <u>3</u>	DIESEL TANK HEATER (NOTE 2)	30	3			4	20	DIESEL HEAT TRACE (NOTE 2)
			5			6	15	CARD READER/FUEL MANAGEMENT
OTHER REQ: _____	LIGHTING	15	7			8	20	FIRE SUPPRESSION SYSTEM (NOTE 1)
	MAINTENANCE RECEPTACLE	20	9			10	20	CONTACTOR COIL VOLTAGE (NOTE 1)
FULL CAPACITY NEUTRAL BUS <input checked="" type="checkbox"/>	CONTACTOR CONTROL POWER	15	11			12	15	LEAK DETECTION PANEL
			13			14	20	PROTEUS MINI-ME
EQUIPMENT GROUNDING BUS <input checked="" type="checkbox"/>			15			16		
			17			18		

PANELBOARD SCHEDULE NOTES: 1. PROVISIONS FOR LOCKING BREAKER ON.
2. GROUND FAULT PROTECTION FOR EQUIPMENT TYPE.



NEW YORK
STATE OF
CONDUCTIVITY

Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

CERTIFICATE OF AUTHORIZATION #: 0017005

LiRo Engineers, Inc.

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LIBERTY
PROFESSIONAL NUMBER
12/31/2025

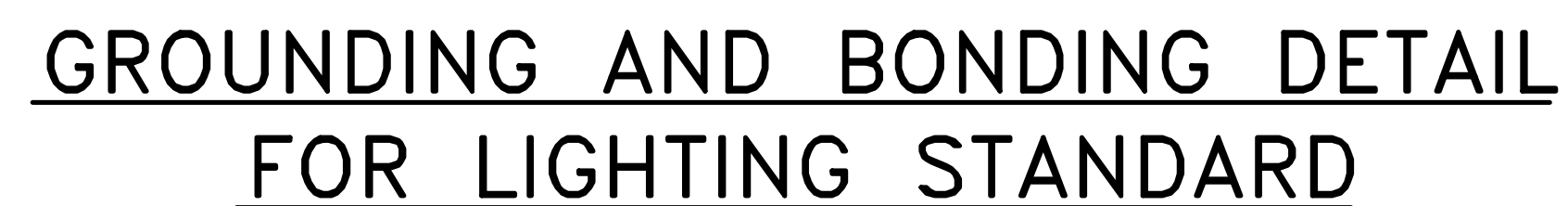
CONTRACT

CONSTRUCTION

TITLE:
FUEL TANK MODIFICATION AND
ENVIRONMENTAL REMEDIATION PROGRAM

LOCATION:
NORTHERN REGION
VARIOUS FACILITIES

MARK	DATE	DESCRIPTION
	1/31/2025	FINAL SUBMISSION
PROJECT NUMBER:	47673	- C
DESIGNED BY:	M. GUTMANN	
DRAWN BY:	A. KELLY	
FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
PANEL SCHEDULE & LOW VOLTAGE ONE LINES		
DRAWING NUMBER:		
C-46		
SHEET 48 OF 51		



SCALE: NONE

NOTES:

1. LOCATE LIGHTING STANDARD A MINIMUM OF 4' AWAY FROM FUEL DISPENSERS AND FUEL TANKS.
2. LIGHTING STANDARD IS NOT TO BE USED AS VERTICAL SUPPORT FOR THE FIRE SUPPRESSION SYSTEM.

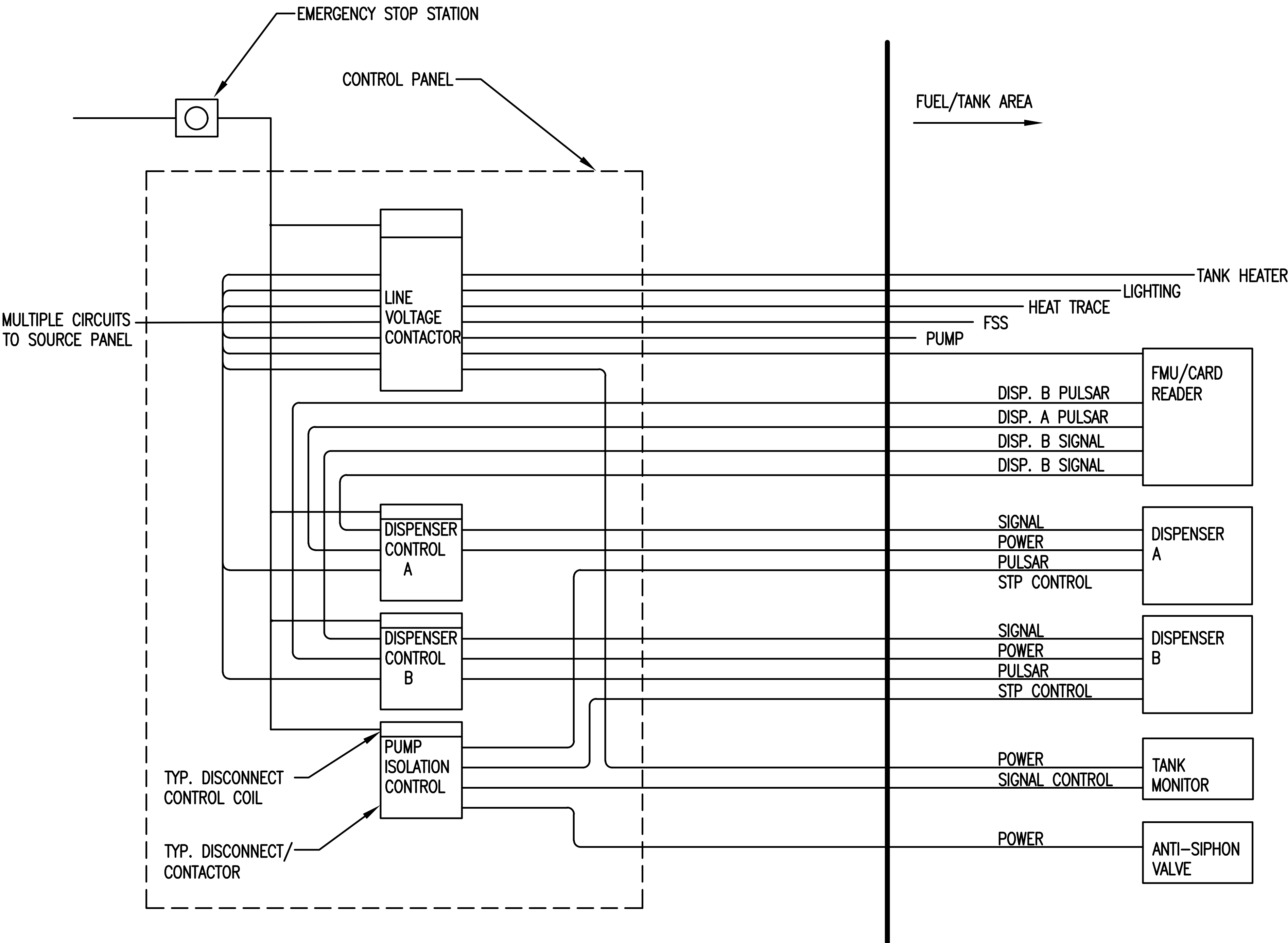
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FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	
SHEET TITLE:		
LIGHTING STANDARD — HAZARDOUS AREA		
DRAWING NUMBER:		
C-47		
SHEET	49	OF 51




GENERAL NOTES:

(THIS DRAWING ONLY)

- A. COMPONENTS SHOWN ON THE DETAIL ARE TYPICAL. NOT ALL INSTALLATIONS WILL REQUIRE ALL COMPONENTS SHOWN.
- B. DETAIL IS DIAGRAMMATIC ONLY, REFER TO MANUFACTURERS INSTALLATION REQUIREMENTS FOR EXACT REQUIREMENTS.
- C. SEALING FITTINGS ARE NOT SHOWN. PROVIDE SEALING FITTINGS AT LOCATIONS INDICATED BY AND DEPICTED IN ARTICLES: 500, 501, 511, 514, AND 515 OF THE 2017 NEC.
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CONTROL OVERVIEW DETAIL




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CERTIFICATE OF AUTHORIZATION #: 0017905



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FIELD CHECK:	M. WESOLOWSKI	
APPROVED:	M. WESOLOWSKI	

SHEET TITLE:

CONTROL OVERVIEW
DETAIL

DRAWING NUMBER:

C-49

SHEET

51

OF

51